

=> FILE HCA

KATI
MYNOTE is on pg 7

FILE 'HCA' ENTERED AT 12:02:18 ON 29 JUN 2004
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FILE COVERS 1907 - 24 Jun 2004 VOL 141 ISS 1
FILE LAST UPDATED: 24 Jun 2004 (20040624/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D HIS NOFILE

(FILE 'HOME' ENTERED AT 09:23:34 ON 29 JUN 2004)

FILE 'HCA' ENTERED AT 09:23:41 ON 29 JUN 2004
L1 4802 SEA ABB=ON PLU=ON TAI ?/AU
L2 41714 SEA ABB=ON PLU=ON THERMOPLASTIC?/?TI
L3 13 SEA ABB=ON PLU=ON L1 AND L2
L4 192947 SEA ABB=ON PLU=ON RESIN?/?TI
L5 7 SEA ABB=ON PLU=ON L3 AND L4
D SCAN

FILE 'HCA' ENTERED AT 09:26:51 ON 29 JUN 2004
L6 669983 SEA ABB=ON PLU=ON COMPOSIT?/?TI
L7 6 SEA ABB=ON PLU=ON L5 AND L6
L8 154739 SEA ABB=ON PLU=ON NYLON(W)6 OR POLYAMIDE#
L9 3 SEA ABB=ON PLU=ON L5 AND L8
D SCAN

FILE 'LCA' ENTERED AT 09:28:08 ON 29 JUN 2004
L10 1535 SEA ABB=ON PLU=ON FIBER? OR WHISKER?

FILE 'HCA' ENTERED AT 09:29:14 ON 29 JUN 2004
L11 638142 SEA ABB=ON PLU=ON FIBER? OR WHISKER?
L12 1 SEA ABB=ON PLU=ON L9 AND L11
D SCAN
L13 2 SEA ABB=ON PLU=ON L9 NOT L12
SEL L12 RN

SEL L13 RN 1-2

FILE 'REGISTRY' ENTERED AT 09:29:57 ON 29 JUN 2004

L14 6 SEA ABB=ON PLU=ON (9003-56-9/B1 OR 110-16-7/B1 OR 11121-16-7/
B1 OR 1309-42-8/B1 OR 25038-54-4/B1 OR 7723-14-0/B1)
L15 11 SEA ABB=ON PLU=ON (25038-54-4/B1 OR 100-42-5/B1 OR 1002-88-6/
B1 OR 107-13-1/B1 OR 107654-26-2/B1 OR 116543-70-5/B1 OR
24993-04-2/B1 OR 25038-59-9/B1 OR 25052-77-1/B1 OR 25067-34-9/B
I OR 9003-54-7/B1)
D SCAN L14
D SCAN L15

FILE 'HCA' ENTERED AT 09:51:54 ON 29 JUN 2004

D L12 ALL

FILE 'LCA' ENTERED AT 09:52:00 ON 29 JUN 2004

L16 14 SEA ABB=ON PLU=ON ABS#(A) (RESIN? OR POLYMER? OR BLEND?)

FILE 'HCA' ENTERED AT 09:55:28 ON 29 JUN 2004

L17 10121 SEA ABB=ON PLU=ON ABS#(A) (RESIN? OR POLYMER? OR BLEND?)
L18 60161 SEA ABB=ON PLU=ON (CARBON#) (2A) (FIBER? OR FIBR?)
L19 79128 SEA ABB=ON PLU=ON POLYAMIDES/CV
E WHISKER/CV
E CRYSTAL WHISKER/CV
L20 9376 SEA ABB=ON PLU=ON "CRYSTAL WHISKERS"/CV
L21 67 SEA ABB=ON PLU=ON L17 AND L18 AND L19
L22 5 SEA ABB=ON PLU=ON L21 AND L20
D SCAN
L23 235210 SEA ABB=ON PLU=ON BLEND#####
L24 2 SEA ABB=ON PLU=ON L22 AND L23
D SCAN

FILE 'REGISTRY' ENTERED AT 09:59:46 ON 29 JUN 2004

L25 2 SEA ABB=ON PLU=ON L14 AND PMS/CI
L26 1 SEA ABB=ON PLU=ON L25 AND 2-5/NC
D L26 CRN
L27 17814 SEA ABB=ON PLU=ON 107-13-1/CRN
L28 9456 SEA ABB=ON PLU=ON 106-99-0/CRN
L29 67138 SEA ABB=ON PLU=ON 100-42-5/CRN
L30 4836 SEA ABB=ON PLU=ON L29 AND L28
L31 5757 SEA ABB=ON PLU=ON L29 AND L27
L32 1598 SEA ABB=ON PLU=ON L29 AND L28 AND L27
E NYLON-6/CN
E NYLON 6/CN
L33 1 SEA ABB=ON PLU=ON "NYLON 6"/CN
D L33 CRN
L34 0 SEA ABB=ON PLU=ON L32 AND L33
L35 0 SEA ABB=ON PLU=ON L31 AND L33
E MALEIC ACID/CN
L36 1 SEA ABB=ON PLU=ON "MALEIC ACID"/CN
L37 0 SEA ABB=ON PLU=ON L31 AND L36
E SUCCINIC ACID/CN
L38 1 SEA ABB=ON PLU=ON "SUCCINIC ACID"/CN
L39 1 SEA ABB=ON PLU=ON GLUTARIC ACID/CN
D SCAN
E ADIPIC ACID/CN
L40 1 SEA ABB=ON PLU=ON "ADIPIC ACID"/CN
L41 2058 SEA ABB=ON PLU=ON L30 AND 2-4/NC

K. Wyrozebski

09/869, 747

06/29/2004

L42 847 SEA ABB=ON PLU=ON L30 AND 2-3/NC
L43 1765 SEA ABB=ON PLU=ON L31 AND 2-4/NC
L44 564 SEA ABB=ON PLU=ON L31 AND 2-3/NC

L45 302 SEA ABB=ON PLU=ON L32 AND 3-4/NC

FILE 'HCA' ENTERED AT 10:09:41 ON 29 JUN 2004
L46 66007 SEA ABB=ON PLU=ON L41
L47 33689 SEA ABB=ON PLU=ON L43
L48 64065 SEA ABB=ON PLU=ON L42
L49 31739 SEA ABB=ON PLU=ON L44
L50 22813 SEA ABB=ON PLU=ON L45
L51 26316 SEA ABB=ON PLU=ON L33
L52 74082 SEA ABB=ON PLU=ON NYLON?
L53 2 SEA ABB=ON PLU=ON S NYLON# (W) 6
D SCAN
L54 25313 SEA ABB=ON PLU=ON NYLON# (W) 6
L55 43898 SEA ABB=ON PLU=ON L36 OR L38 OR L39 OR L40
L56 845 SEA ABB=ON PLU=ON L50 AND L54
L57 7 SEA ABB=ON PLU=ON L55 AND L56
L58 16679 SEA ABB=ON PLU=ON WHISKER?
L59 1 SEA ABB=ON PLU=ON L57 AND (FIBER? OR FIBR?)
L60 1 SEA ABB=ON PLU=ON L57 AND L58

FILE 'REGISTRY' ENTERED AT 10:14:59 ON 29 JUN 2004
D L36 RN

FILE 'HCA' ENTERED AT 10:15:37 ON 29 JUN 2004
L61 7350 SEA ABB=ON PLU=ON L36/D OR L38/D OR L39/D OR L40/D
L62 17 SEA ABB=ON PLU=ON L61 (L) (ABS##)

FILE 'LCA' ENTERED AT 10:17:30 ON 29 JUN 2004
L63 0 SEA ABB=ON PLU=ON KISUMA? OR NOVAEXCEL? OR ALBOREX?
L64 140 SEA ABB=ON PLU=ON POLYCARBONATE?

FILE 'REGISTRY' ENTERED AT 10:23:10 ON 29 JUN 2004
D SCAN L14
L65 1 SEA ABB=ON PLU=ON L14 AND BORIC ACID
L66 1 SEA ABB=ON PLU=ON L14 AND MAGNESIUM
L67 1 SEA ABB=ON PLU=ON L14 AND PHOSPHORUS

FILE 'HCA' ENTERED AT 10:24:54 ON 29 JUN 2004
L68 619 SEA ABB=ON PLU=ON L65
L69 13028 SEA ABB=ON PLU=ON L66
L70 160832 SEA ABB=ON PLU=ON L67
L71 1585 SEA ABB=ON PLU=ON (ALUMINUM# OR AL) (W) BORATE#
L72 1663 SEA ABB=ON PLU=ON L68 OR L71
L73 20284 SEA ABB=ON PLU=ON L69 OR (MAGNESIUM# OR MG) (W) (HYDROXIDE#)
OR MGOH# OR MG (W) OH#
L74 137990 SEA ABB=ON PLU=ON L67 AND PHOSPHORUS#

FILE 'REGISTRY' ENTERED AT 10:28:09 ON 29 JUN 2004
E ALUMINUM BORATE/CN
L75 2 SEA ABB=ON PLU=ON "ALUMINUM BORATE"/CN
D SCAN

FILE 'HCA' ENTERED AT 10:28:46 ON 29 JUN 2004
L76 679 SEA ABB=ON PLU=ON L75

L77 1916 SEA ABB=ON PLU=ON L76 OR L72 OR ALB03 OR AL#(W) BO#
FILE 'LCA' ENTERED AT 11:05:03 ON 29 JUN 2004
L78 5338 SEA ABB=ON PLU=ON POLYMER## OR HOMOPOLYMER## OR COPOLYMER##
OR TERPOLYMER## OR RESIN? OR GUM?
L79 1635 SEA ABB=ON PLU=ON PLASTIC? OR THERMOPLASTIC? OR THERMOSET?
OR (RESINOUS? OR POLYMER? OR SYNTHETIC?) (2A) (MATERIAL? OR
SUBSTANCE? OR MOLD? OR CAST?)
L80 185 SEA ABB=ON PLU=ON (FLAME? OR FIRE?) (W) (PROOF? OR RETARD? OR
RESIST?) OR FIREPROOF? OR FLAMEPROOF?
L81 2834 SEA ABB=ON PLU=ON (COMP# OR COMPOSIT? OR DISPERS? OR
SUSPENS? OR MIXTURE? OR BLEND? OR ADMIX? OR COMMIX? OR COMMIX?
OR INTERMIX? OR COMPSN# OR COMPN# OR FORMULAT? OR INTERSPER?) /T
I

FILE 'REGISTRY' ENTERED AT 11:06:24 ON 29 JUN 2004
E CARBON FIBER/CN

L82 1 SEA ABB=ON PLU=ON "CARBON FIBERS"/CN

FILE 'HCA' ENTERED AT 11:07:17 ON 29 JUN 2004
L83 680610 SEA ABB=ON PLU=ON PLASTIC? OR THERMOPLASTIC? OR THERMOSET?
OR (RESINOUS? OR POLYMER? OR SYNTHETIC?) (2A) (MATERIAL? OR
SUBSTANCE? OR MOLD? OR CAST?)
L84 63929 SEA ABB=ON PLU=ON (FLAME? OR FIRE?) (W) (PROOF? OR RETARD? OR
RESIST?) OR FIREPROOF? OR FLAMEPROOF?
L86 1038773 SEA ABB=ON PLU=ON (COMP# OR COMPOSIT? OR DISPERS? OR
SUSPENS? OR MIXTURE? OR BLEND? OR ADMIX? OR COMMIX? OR COMMIX?
OR INTERMIX? OR COMPSN# OR COMPN# OR FORMULAT? OR INTERSPER?) /T
I
L87 QUE ABB=ON PLU=ON L78 OR POLYMER
L88 0 SEA ABB=ON PLU=ON L82
L89 1068570 SEA ABB=ON PLU=ON FIBER? OR FIBR? OR FILAMENT? OR THREAD? OR
STRAND? OR RIBBON? OR FILIFORM?
L90 62472 SEA ABB=ON PLU=ON CARBON#(3A)L89
L91 35235 SEA ABB=ON PLU=ON L51 OR L54
L92 228538 SEA ABB=ON PLU=ON L47 OR L49 OR L50 OR ABS#
L93 1817 SEA ABB=ON PLU=ON L61(3A)L78

FILE 'REGISTRY' ENTERED AT 11:11:31 ON 29 JUN 2004
E CARBON/CN

L94 1 SEA ABB=ON PLU=ON CARBON/CN
L*** DEL 1 S L94

FILE 'HCA' ENTERED AT 11:12:05 ON 29 JUN 2004
L95 278927 SEA ABB=ON PLU=ON L94
L96 62564 SEA ABB=ON PLU=ON L95(3A)L89 OR L90
L97 1916 SEA ABB=ON PLU=ON L71 OR L76 OR L77 OR ALB03
L98 2071 SEA ABB=ON PLU=ON L91 AND L92
L99 1 SEA ABB=ON PLU=ON L98 AND L93
L100 98 SEA ABB=ON PLU=ON L98 AND L96
L101 1 SEA ABB=ON PLU=ON L100 AND L93
L102 14 SEA ABB=ON PLU=ON L100 AND L84
L103 2 SEA ABB=ON PLU=ON L102 AND L73
L104 74082 SEA ABB=ON PLU=ON NYLON?
L105 2254 SEA ABB=ON PLU=ON L104 AND L92
L106 1 SEA ABB=ON PLU=ON L105 AND L93
L107 1757 SEA ABB=ON PLU=ON L55(2A)L78

L108 0 SEA ABB=ON PLU=ON L105 AND L107
 L109 56939 SEA ABB=ON PLU=ON POLYCARBONATE?
 L110 2684 SEA ABB=ON PLU=ON L104 AND L109
 L111 768 SEA ABB=ON PLU=ON L110 AND L92
 L112 48 SEA ABB=ON PLU=ON L111 AND L96
 L113 4 SEA ABB=ON PLU=ON L111 AND L97
 L114 8 SEA ABB=ON PLU=ON L112 AND L80
 L115 2 SEA ABB=ON PLU=ON L114 AND L73
 L116 2 SEA ABB=ON PLU=ON L112 AND L115
 L117 207479 SEA ABB=ON PLU=ON MALEIC# OR OXALIC# OR SUCCINIC# OR
 GLUTARIC# OR ADIPIC#
 L118 1556 SEA ABB=ON PLU=ON L117 AND L93
 L119 82271 SEA ABB=ON PLU=ON L91 OR L104
 L120 3024 SEA ABB=ON PLU=ON L119 AND L92
 L121 2 SEA ABB=ON PLU=ON L120 AND L118
 L122 1112 SEA ABB=ON PLU=ON L120 AND L109
 L123 72 SEA ABB=ON PLU=ON L122 AND L96
 L124 2 SEA ABB=ON PLU=ON L123 AND L97
 L125 13 SEA ABB=ON PLU=ON L99 OR L101 OR L103 OR L106 OR L113 OR
 L114 OR L115 OR L116 OR L121 OR L124
 L126 8 SEA ABB=ON PLU=ON L102 NOT L125
 L127 6 SEA ABB=ON PLU=ON L126 AND L81
 L128 8 SEA ABB=ON PLU=ON L125 AND L81
 L129 13 SEA ABB=ON PLU=ON L125 OR L128
 L130 8 SEA ABB=ON PLU=ON L126 OR L127
 L131 21 SEA ABB=ON PLU=ON L129 OR L130
 L132 15 SEA ABB=ON PLU=ON L131 AND 1907-1999/PY, PRY
 L133 6 SEA ABB=ON PLU=ON L131 NOT L132
 L134 21 SEA ABB=ON PLU=ON L131 AND (L78 OR L83 OR L84)
 L135 6 SEA ABB=ON PLU=ON L134 AND L117
 L136 21 SEA ABB=ON PLU=ON L134 OR L135
 L137 13 SEA ABB=ON PLU=ON L22 OR L24 OR L53 OR L57 OR L59 OR L60
 L138 12 SEA ABB=ON PLU=ON L137 NOT L136
 L139 3 SEA ABB=ON PLU=ON L138 AND L86
 L140 33 SEA ABB=ON PLU=ON L134 OR L136 OR L137 OR L138 OR L139
 L141 31 SEA ABB=ON PLU=ON L140 AND (L17 OR L18 OR L19 OR L20)
 L142 33 SEA ABB=ON PLU=ON L140 OR L141

FILE 'HCA' ENTERED AT 11:39:18 ON 29 JUN 2004

L143 9 SEA ABB=ON PLU=ON L142 AND 2000-2004/PY
 L144 24 SEA ABB=ON PLU=ON L142 NOT L143
 L145 9 SEA ABB=ON PLU=ON L144 AND L81
 L146 8 SEA ABB=ON PLU=ON L143 AND L81
 L147 15 SEA ABB=ON PLU=ON L144 NOT L145
 L148 2 SEA ABB=ON PLU=ON L145 AND L1
 L149 24 SEA ABB=ON PLU=ON L144 OR L145
 L150 25 SEA ABB=ON PLU=ON L142 AND 1950-1999/PY, PRY
 L151 25 SEA ABB=ON PLU=ON L149 OR L150
 L152 8 SEA ABB=ON PLU=ON L142 NOT L151
 L153 1 SEA ABB=ON PLU=ON L151 AND L5
 L154 0 SEA ABB=ON PLU=ON L152 AND L5
 L155 24 SEA ABB=ON PLU=ON L151 NOT L153

FILE 'RAPRA' ENTERED AT 11:43:47 ON 29 JUN 2004

L156 500264 SEA ABB=ON PLU=ON POLYMER## OR HOMOPOLYMER## OR COPOLYMER##
 OR TERPOLYMER## OR RESIN? OR GUM?
 L157 73434 SEA ABB=ON PLU=ON (COMP# OR COMPOSIT? OR DISPERS? OR
 SUSPENS? OR MIXTURE? OR BLEND? OR ADMIX? OR COMMIX? OR COMMIX?

OR INTERMIX? OR COMPSN# OR COMPN# OR FORMULAT? OR INTERSPER?) /T
I

L158 59697 SEA ABB=ON PLU=ON L156 AND L157
 D SCAN
 T L158 1

L159 15382 SEA ABB=ON PLU=ON ABS#
 L160 2270 SEA ABB=ON PLU=ON L159(2A)L156
 L161 27478 SEA ABB=ON PLU=ON NYLON?
 L162 20861 SEA ABB=ON PLU=ON POLYCARBONATE?
 L163 15873 SEA ABB=ON PLU=ON L156(3A)L157
 L164 600 SEA ABB=ON PLU=ON L163 AND L161
 L165 77 SEA ABB=ON PLU=ON L164 AND L162
 L166 28 SEA ABB=ON PLU=ON L165 AND L159
 L167 2 SEA ABB=ON PLU=ON L165 AND L160
 L168 15487 SEA ABB=ON PLU=ON CARBON(2A) (FIBER? OR FIBR?)
 L169 338 SEA ABB=ON PLU=ON WHISKER?
 L170 2 SEA ABB=ON PLU=ON L166 AND L168
 L171 0 SEA ABB=ON PLU=ON L166 AND L169
 L172 0 SEA ABB=ON PLU=ON L165 AND L169
 L173 2 SEA ABB=ON PLU=ON L164 AND L169
 L174 6 SEA ABB=ON PLU=ON L167 OR L170 OR L173
 L175 34678 SEA ABB=ON PLU=ON POLYAMIDE?
 L176 5 SEA ABB=ON PLU=ON L174 AND L175
 L177 6 SEA ABB=ON PLU=ON L174 OR L176
 L178 0 SEA ABB=ON PLU=ON ACETONITRILE? (2A) STYRENE? (2A) BUTADIENE?
 L179 14616 SEA ABB=ON PLU=ON STYRENE? (2A) BUTADIENE?
 L180 1 SEA ABB=ON PLU=ON L177 AND L179
 L181 1 SEA ABB=ON PLU=ON L180 AND L161
 L182 598 SEA ABB=ON PLU=ON L179 AND L161
 L183 7074 SEA ABB=ON PLU=ON MALEIC# OR OXALIC# OR SUCCINIC# OR
 GLUTARIC# OR ADIPIC#
 L184 175 SEA ABB=ON PLU=ON L182 AND L162
 L185 10 SEA ABB=ON PLU=ON L184 AND L183
 L186 14 SEA ABB=ON PLU=ON L184 AND L168
 L187 16 SEA ABB=ON PLU=ON L71 OR L76 OR L77 OR ALBO3
 L188 0 SEA ABB=ON PLU=ON L184 AND L187
 L189 0 SEA ABB=ON PLU=ON L186 AND L169
 L190 16 SEA ABB=ON PLU=ON L174 OR L176 OR L177 OR L180 OR L181 OR
 L185
 L191 1 SEA ABB=ON PLU=ON L190 AND 1960-1999/PRY
 L192 16 SEA ABB=ON PLU=ON L190 OR L191

FILE 'WPIX' ENTERED AT 11:57:10 ON 29 JUN 2004

L193 1236237 SEA ABB=ON PLU=ON POLYMER## OR HOMOPOLYMER## OR COPOLYMER##
 OR TERPOLYMER## OR RESIN? OR GUM?
 L194 754767 SEA ABB=ON PLU=ON (COMP# OR COMPOSIT? OR DISPERS? OR
 SUSPENS? OR MIXTURE? OR BLEND? OR ADMIX? OR COMMIX? OR COMMIX?
 OR INTERMIX? OR COMPSN# OR COMPN# OR FORMULAT? OR INTERSPER?) /T
 I

L195 298367 SEA ABB=ON PLU=ON L156 AND L157
 L196 16552 SEA ABB=ON PLU=ON ABS#
 L197 6346 SEA ABB=ON PLU=ON L159(2A)L156
 L198 46479 SEA ABB=ON PLU=ON NYLON?
 L199 45276 SEA ABB=ON PLU=ON POLYCARBONATE?
 L200 28201 SEA ABB=ON PLU=ON CARBON(2A) (FIBER? OR FIBR?)
 L201 5591 SEA ABB=ON PLU=ON WHISKER?
 L202 120776 SEA ABB=ON PLU=ON L193(2A)L194
 L203 120776 SEA ABB=ON PLU=ON L202 AND L195

L204	2252	SEA ABB=ON	PLU=ON	L203 AND L196
L205	1852	SEA ABB=ON	PLU=ON	L204 AND L197
L206	113	SEA ABB=ON	PLU=ON	L205 AND L198
L207	52	SEA ABB=ON	PLU=ON	L206 AND L199
L208	8	SEA ABB=ON	PLU=ON	L207 AND L200
L209	2	SEA ABB=ON	PLU=ON	L207 AND L201
L210	2	SEA ABB=ON	PLU=ON	L206 AND L201
L211	9	SEA ABB=ON	PLU=ON	L208 OR L209 OR L210
L212	951	SEA ABB=ON	PLU=ON	TAI ?/AU
L213	0	SEA ABB=ON	PLU=ON	L211 AND L212

FILE 'HCA' ENTERED AT 12:02:18 ON 29 JUN 2004

=> D l153 1 CBIB ABS HITIND HITRN

Kat,

This is the applicant's record. If you look at the reg. number for the polycarbonate 110-16-7D the registry number is for maleic acid, the D means that the polymer is a derivative created by reacting the polymer (ABS or polystyrene/butadiene/nitrile) with maleic acid. The other reg. # 9003-56-9D is the reg. # for the polymer blend (styrene/butadiene..) that has been maleated. Again the D represents a derivative of the polymer.

The other important point is that the components of the blend (nylon-6, polystyrene/butadiene etc.) are listed as separate reg. numbers. There isn't a registry number for the blend, only the components.

Well sorry for the long search, but I did try to search it as many ways as possible. I searched for the nylon 6 or nylon (component 1 in your email), the polystyrene/butadiene blend (component 2), carboxy group (component 3), carbon fibers (5) and whisker/aluminum borate + fire resistant ($Mg(OH)_3$) and phosphorus.

I searched Chemical Abstracts first. The first 24 records printed were date limited to 1907-1999. The balance of the records fall outside this date range. I searched RAPRA which is a polymer file. I wasn't able to date limit these answers. Moreover, I wasn't able to search using reg. #'s and I can't scan the records so the results are a bit mushy. Lastly, I searched Derwent, I didn't date limit because there were so few answers and again I couldn't search with the specificity of reg. #'s.

If you have any questions please feel free to call me.

John

703-308-4139

L153 ANSWER 1 OF 1 HCA COPYRIGHT 2004 ACS on STN
134:327290 Fluidable **thermoplastic resin**

compositions with high mechanical strength. **Tai,**
Toshihiro (Daicel Chemical Industries, Ltd., Japan). PCT Int. Appl.
WO 2001032781 A1 20010510, 16 pp. DESIGNATED STATES: W: US; RW: AT, BE,
CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR.

- (Japanese). CODEN: PIXXD2. APPLICATION: WO 2000-JP7751 20001102.
PRIORITY: JP 1999-312415 19991102.
- AB Title compns. comprise **thermoplastic resins** 30-90, **fibrous fillers** 5-60, and **whiskers** 5-60%. A composition comprising a **polycarbonate** 50, **carbon fibers** 30, and Alborex Y **whiskers** 20 parts showed ASTM D 1238 melt index 22 g/10 min and was molded into a test piece with dimension distortion 0.6 mm and Izod impact strength 50 J/m.
- IC ICM C08L101-00
ICS C08K007-02; C08J007-06
- CC 37-6 (Plastics Manufacture and Processing)
- ST polyamide **blend fiber whisker** moldability mech strength; **polycarbonate blend fiber whisker** moldability mech strength; styrene **resin blend fiber whisker** moldability mech strength
- IT **Crystal whiskers**
Fillers
Impact-resistant materials
(**fiber** filler- and **whisker**-containing **thermoplastic resin** compns. with moldability and mech. strength)
- IT **Carbon fibers, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(**fiber** filler- and **whisker**-containing **thermoplastic resin** compns. with moldability and mech. strength)
- IT **Polyamides, uses**
Polycarbonates, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(**fiber** filler- and **whisker**-containing **thermoplastic resin** compns. with moldability and mech. strength)
- IT 110-16-7D, **Maleic acid**, reaction products with **ABS resin** 9003-56-9, **ABS polymer** 9003-56-9D, **ABS polymer**, maleated 25038-54-4, **Nylon 6**, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(**fiber** filler- and **whisker**-containing **thermoplastic resin** compns. with moldability and mech. strength)
- IT 1309-42-8, **Kisuma 5A**
RL: MOA (Modifier or additive use); USES (Uses)
(**fire retardant**; **fiber** filler- and **whisker**-containing **thermoplastic resin** compns. with moldability and mech. strength)
- IT 7723-14-0, **Novaexcel 140**, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**red, fire retardant**; **fiber** filler- and **whisker**-containing **thermoplastic resin** compns. with moldability and mech. strength)
- IT 11121-16-7, **Alborex Y**
RL: MOA (Modifier or additive use); USES (Uses)
(**whiskers**; **fiber** filler- and **whisker**-containing **thermoplastic resin** compns. with moldability and mech. strength)
- IT 110-16-7D, **Maleic acid**, reaction products with

ABS resin 9003-56-9, ABS polymer 9003-56-9D, ABS polymer, maleated 25038-54-4, Nylon 6, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(fiber filler- and whisker-containing thermoplastic resin compns. with moldability and mech. strength)

IT **1309-42-8, Kisuma 5A**
RL: MOA (Modifier or additive use); USES (Uses)
(fire retardant; fiber filler- and whisker-containing thermoplastic resin compns. with moldability and mech. strength)

IT **11121-16-7, Alborex Y**
RL: MOA (Modifier or additive use); USES (Uses)
(whiskers; fiber filler- and whisker-containing thermoplastic resin compns. with moldability and mech. strength)

=> D 1155 1-24 CBIB ABS HITIND HITRN

L155 ANSWER 1 OF 24 HCA COPYRIGHT 2004 ACS on STN

135:6354 Impact-resistant **thermoplastic resin compositions** containing crosslinked saturated rubbers. Kinoshita, Hideo; Otani, Yuji; Yasui, Takeshi (Asahi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001146533 A2 20010529, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-155888 20000526. PRIORITY: JP 1999-255801 19990909.

AB The compns. contain (A) 5-95 parts **thermoplastic elastomers** containing (a) 1-40% (partially) crosslinked saturated rubbers and (b) polyolefins, (B) 5-95 parts **thermoplastic polymers** except polyolefins, and (C) 0.1-50 parts (based on 100 parts total content of A and B) compatibilizers. Thus, a composition containing (A) 15.8% crosslinked product of 6:44.4:0.74 ethylene-1-octene rubber (metallocene-catalyzed), PM 900A (isotactic polypropylene), and divinylbenzene, (B) 84.1% GP 685 (polystyrene), and (C) 6.7% hydrogenated styrene-butadiene block rubber was injection-molded to give a test piece showing good mech. properties and weather and oil resistance.

IC ICM C08L023-00
ICS C08J003-24; C08K003-34; C08K007-06; C08K007-14; C08L023-08;
C08L023-10; C08L053-02; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 39

ST impact weather oil resistance **thermoplastic polyolefin; ethylene octene rubber isotactic polypropylene blend; polystyrene styrene butadiene block compatibilizer blend**

IT **Polyamides, properties**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(1007J; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)

IT Styrene-butadiene rubber, uses
RL: MOA (Modifier or additive use); USES (Uses)
(block, triblock, epoxidized, Epofriend A 1020, compatibilizer; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)

- IT EPDM rubber
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(dicyclopentadiene-ethylene-propene, metallocene-catalyzed, vulcanized; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT Polyolefin rubber
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(ethylene-octene, metallocene-catalyzed, vulcanized; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT Reinforced **plastics**
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(fiber-reinforced; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT Styrene-butadiene rubber, uses
RL: MOA (Modifier or additive use); USES (Uses)
(hydrogenated, block, Tuftec, compatibilizer; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT Isoprene-styrene rubber
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(hydrogenated, block, triblock, Septon 2023, vulcanized; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT Impact-resistant materials
Oil-resistant materials
Polymer blend compatibilizers
Vulcanization accelerators and agents
(impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT **Carbon fibers**, uses
Glass fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT **Polyamides, properties**
Polycarbonates, properties
Polyesters, properties
Polyolefins
Polyoxyphenylenes
Polyurethanes, properties
Thermoplastic rubber
Urethane rubber, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT **Polymer** blends
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT Polymerization catalysts
(metallocene; impact-resistant **thermoplastic resin**

- compns. containing crosslinked saturated rubbers)
IT EPDM rubber
RL: MOA (Modifier or additive use); USES (Uses)
(**polymer** with acrylonitrile and styrene, compatibilizer;
impact-resistant **thermoplastic resin** compns. containing
crosslinked saturated rubbers)
- IT Polyolefin rubber
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(vulcanized; impact-resistant **thermoplastic resin**
compns. containing crosslinked saturated rubbers)
- IT 25038-54-4, 1007J, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(1007J; impact-resistant **thermoplastic resin**
compns. containing crosslinked saturated rubbers)
- IT 25085-53-4, PM 900A
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(PM 900A; impact-resistant **thermoplastic resin**
compns. containing crosslinked saturated rubbers)
- IT 108-31-6D, Maleic anhydride, reaction product with polypropylene
9003-07-0D, Polypropylene, maleated 25068-12-6, Ethylene-styrene
copolymer 107173-09-1, Modiper A 3100 137261-53-1, Admer QF
305 189460-54-6, Royaltuf 372P20
RL: MOA (Modifier or additive use); USES (Uses)
(compatibilizer; impact-resistant **thermoplastic resin**
compns. containing crosslinked saturated rubbers)
- IT 9002-88-4, Suntec HD-B 470
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(high-d.; impact-resistant **thermoplastic resin**
compns. containing crosslinked saturated rubbers)
- IT 14807-96-6, Talc, uses
RL: MOA (Modifier or additive use); USES (Uses)
(impact-resistant **thermoplastic resin** compns.
containing crosslinked saturated rubbers)
- IT 124-04-9D, Adipic acid, **polymers** with
polyurethane 9003-53-6, GP 685 9003-54-7, Acrylonitrile-
styrene **copolymer** 24936-68-3, Calibre 13, properties
24968-12-5, 1401X06 25037-45-0 25038-59-9, Polyethylene terephthalate,
properties 26062-94-2 26546-03-2, Poly(trimethylene terephthalate),
srn 26590-75-0, Poly(trimethylene terephthalate) 106565-43-9, PM 970A
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(impact-resistant **thermoplastic resin** compns.
containing crosslinked saturated rubbers)
- IT 25038-32-8
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(isoprene-styrene rubber, hydrogenated, block, triblock, Septon 2023,
vulcanized; impact-resistant **thermoplastic resin**
compns. containing crosslinked saturated rubbers)
- IT 25034-71-3, Dicyclopentadiene-ethylene-propylene **copolymer**
26221-73-8, ethylene-octene-1 **copolymer**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(metallocene-catalyzed, rubber, vulcanized; impact-resistant

- thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT 106107-54-4
RL: MOA (Modifier or additive use); USES (Uses)
(styrene-butadiene rubber, block, triblock, epoxidized, Epofriend A 1020, compatibilizer; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT 9003-55-8
RL: MOA (Modifier or additive use); USES (Uses)
(styrene-butadiene rubber, hydrogenated, block, Tuftec, compatibilizer; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT 1321-74-0, Divinylbenzene, uses
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(vulcanizer; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT 25038-54-4, 1007J, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(1007J; impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)
- IT 124-04-9D, Adipic acid, polymers with polyurethane 9003-54-7, Acrylonitrile-styrene copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(impact-resistant **thermoplastic resin** compns. containing crosslinked saturated rubbers)

L155 ANSWER 2 OF 24 HCA COPYRIGHT 2004 ACS on STN

134:267091 Graft **copolymer** and **thermoplastic resin**
composition containing the same. Nakai, Yoshihiro; Fujii, Hideyuki; Yokohama, Hisaya; Ikebe, Takahiro; Fukuyama, Nobumitsu; Shigemitsu, Hideyuki (Mitsubishi Rayon Co., Ltd., Japan). PCT Int. Appl. WO 2001023449 A1 20010405, 57 pp. DESIGNATED STATES: W: CN, JP, KR, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2000-JP6645 20000927. PRIORITY: JP 1999-273462 19990927.

AB A graft **copolymer** is obtained by grafting at least one monomer selected among aromatic alkenyl compds., methacrylic esters, acrylic esters, and vinyl cyanide compds. onto a rubbery **polymer** comprising 0-50% butadiene units and 50-100% alkyl (meth)acrylate units through emulsion **polymerization** and characterized by containing an emulsifier residue in an amount of 0.5-2.0%. A **thermoplastic resin** composition containing the graft **copolymer** is reduced in gas generation during molding, gives a molding having a satisfactory gloss, and is excellent in weatherability, impact resistance, and flowability. Thus, 100 parts 1,3-butadiene-styrene **copolymer** latex (particle size 70 nm) and 2.1 parts Bu acrylate-methacrylic acid **copolymer** latex (particle size 150 nm) were mixed to give a modified butadiene **polymer** latex (particle size 380 nm), 10 parts of which was mixed with Latemul ASK 0.3, Bu acrylate 40, allyl methacrylate 0.16, 1,3-butylene glycol dimethacrylate 0.08, and tert-Bu hydroperoxide 0.1 parts to give a composite rubber latex (particle size 300 nm), which was mixed with acrylonitrile, styrene, and Latemul ASK to give a graft **polymer** latex with Latemul residue 1.3% and 1% weight loss temperature 320°. A composition comprising 48 parts graft **polymer** latex and 52 parts acrylonitrile-styrene **copolymer** obtained from 29

parts acrylonitrile and 71 parts styrene gave melt flow rate 1.5 g/10 min (220°, 5 kg-load), gloss 80% at molding temperature 280° Izod impact strength 265 J/m at 23° and 90 J/m at -30°, Rockwell hardness 94, reduced gas generation during molding at 280°, and good weather resistance.

- IC ICM C08F265-00
ICS C08L051-04; C08L101-00
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 39
ST **thermoplastic resin** compn graft **copolymer**
reduced gas generation molding
IT Acrylic rubber
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(Bu acrylate-methacrylic acid, intermediate; preparation of graft **copolymers** for **thermoplastic resin** compns.
with reduced gas generation during molding)
IT Glass fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(ECS 03T34; **thermoplastic resin** compns. with
reduced gas generation during molding containing graft **copolymers**
and)
IT **Polyamides, properties**
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(Novamid 30100SR; **thermoplastic resin** compns. with
reduced gas generation during molding containing graft **copolymers**
and)
IT **Carbon fibers, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(Pyrofil TR 06U; **thermoplastic resin** compns. with
reduced gas generation during molding containing graft **copolymers**
and)
IT Mica-group minerals, uses
RL: MOA (Modifier or additive use); USES (Uses)
(WG 325; **thermoplastic resin** compns. with reduced
gas generation during molding containing graft **copolymers** and)
IT Acrylic rubber
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(acrylic acid-Bu acrylate, intermediate; preparation of graft **copolymers** for
thermoplastic resin compns.
with reduced gas generation during molding)
IT Polysiloxanes, preparation
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft, graft; preparation of graft **copolymers** for
thermoplastic resin compns. with reduced gas
generation during molding)
IT Polysiloxanes, preparation
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-silicate-, graft; preparation of graft **copolymers** for
thermoplastic resin compns. with reduced gas
generation during molding)
IT Synthetic rubber, preparation

- RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(allyl methacrylate-Bu acrylate-butadiene-butylene dimethacrylate-methacrylic acid-styrene, intermediate; preparation of graft copolymers for **thermoplastic resin** compns.
with reduced gas generation during molding)
- IT Synthetic rubber, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(allyl methacrylate-Bu acrylate-methacryloyloxypropylmethoxymethylsilane-octamethylcyclotetrasiloxane-tetraethoxysilane, intermediate; preparation of graft copolymers for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT Polyesters, properties
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(aromatic; **thermoplastic resin** compns. with reduced gas generation during molding containing graft copolymers and)
- IT Synthetic rubber, preparation
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(diene, nonconjugated, polymers with ethylene and propylene; **thermoplastic resin** compns. with reduced gas generation during molding containing graft copolymers and)
- IT Polymerization
(emulsion, graft; preparation of graft copolymers for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT Impact-resistant materials
(**fire-resistant; thermoplastic resin** compns. with reduced gas generation during molding containing graft copolymers and)
- IT Fire-resistant materials
(impact-resistant; **thermoplastic resin** compns. with reduced gas generation during molding containing graft copolymers and)
- IT Fillers
(inorg.; **thermoplastic resin** compns. with reduced gas generation during molding containing graft copolymers and)
- IT Polysiloxanes, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(intermediate or additive; preparation of graft copolymers for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT Styrene-butadiene rubber, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of graft copolymers for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT Automobiles
(parts; **thermoplastic resin** compns. with reduced gas generation during molding containing graft copolymers for)
- IT Liquid crystals, polymeric
(polyesters; **thermoplastic resin** compns. with reduced gas generation during molding containing graft copolymers)

- and)
- IT Polyketones
Polysulfones, properties
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polyether-; **thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT Polyethers, properties
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polyketone-; **thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT Polyethers, properties
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polysulfone-; **thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT Emulsifying agents
(preparation of graft **copolymers** for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT Polysiloxanes, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(silicate-, intermediate; preparation of graft **copolymers** for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT Fireproofing agents
(**thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT Acrylic polymers, properties
 Polyamides, properties
 Polycarbonates, properties
Polyesters, properties
Polyolefins
Polyoxymethylene, properties
Polyoxyphenylenes
Polythiophenylenes
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT Polymer blends
RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT Fluoropolymers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT Electric apparatus
(**thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** for)
- IT Molded plastics, properties
RL: DEV (Device component use); PRP (Properties); TEM (Technical or

- engineered material use); USES (Uses)
(**thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** for)
- IT Plastics, preparation
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**thermoplastics; thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT 32131-17-2, Nylon 66, properties
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(Novamid 30100SR; **thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT 9003-53-6, Polystyrene
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(Sumibrite M 140; **thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT 676-47-1D, Dipotassium succinate, alkenyl derivs. 105953-88-6, Latemul ASK
RL: MOA (Modifier or additive use); USES (Uses)
(emulsifier; preparation of graft **copolymers** for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT 79-94-7D, Tetrabromobisphenol A, derivs. 115-86-6, Triphenylphosphate
7723-14-0, Phosphorus, uses 331723-46-7, SR-T 104N
RL: MOA (Modifier or additive use); USES (Uses)
(fire retardant; **thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT 100-42-5D, Styrene, **polymers**
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(high impact; **thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT 285981-34-2P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate, rubber; preparation of graft **copolymers** for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT 26967-37-3P, γ -Methacryloyloxypropyldimethoxymethylsilane-octamethylcyclotetrasiloxane **copolymer** 142280-86-2P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of graft **copolymers** for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT 74-85-1D, Ethylene, **polymers** with α -olefins
RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(linear low-d.; **thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers**)

- and)
- IT 134438-21-4P 182125-87-7P, Acrylonitrile-allyl methacrylate-butyl acrylate-1,3-butylene glycol dimethacrylate- γ -methacryloyloxypropylidemethoxymethylsilane-octamethylcyclotetrasiloxane-styrene graft **copolymer** 214195-61-6P, Acrylonitrile-allyl methacrylate-1,3-butadiene-butyl acrylate-1,3-butylene glycol dimethacrylate-methacrylic acid-styrene graft **copolymer**
 RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of graft **copolymers** for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT 25035-82-9P, Butyl acrylate-methacrylic acid **copolymer**
 331428-50-3P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (rubber, intermediate; preparation of graft **copolymers** for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT 9003-55-8P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (styrene-butadiene rubber, intermediate; preparation of graft **copolymers** for **thermoplastic resin** compns. with reduced gas generation during molding)
- IT 74-85-1DP, Ethylene, **polymers** with propylene and nonconjugated diene rubbers 115-07-1DP, Propylene, **polymers** with ethylene and nonconjugated diene rubbers 9003-54-7P, Acrylonitrile-styrene **copolymer** 9011-87-4P, Methyl acrylate-methyl methacrylate **copolymer** 25213-88-1P, Acrylonitrile-methyl methacrylate-styrene **copolymer** 29762-66-1P, Acrylonitrile-glycidyl methacrylate-styrene **copolymer** 31621-07-5P, Acrylonitrile-N-phenylmaleimide-styrene **copolymer** 117646-49-8P, Acrylonitrile-butyl acrylate-1,3-butadiene-methacrylic acid-styrene graft **copolymer** 223382-24-9P, Techno AES-W 220
 RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (**thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT 9002-86-2, TK 1000 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9011-13-6, **Maleic anhydride-styrene copolymer**
 24936-68-3, Iupilon S 2000F, properties 24968-12-5, Tufpet N 1300
 25037-45-0 25038-54-4, Novamid 1013C, properties 25085-53-4, Novatec MA 4 25852-37-3, Metablen P 531 26062-94-2 26590-50-1, U-Polymer U 100 39281-59-9 89592-01-8, Noryl 731J 113690-27-0, Noryl GTX 600 145808-80-6, Sumibrite M 540 154215-00-6, Polyethyl LL-UE 320 275360-81-1, Duracon M 140 331730-10-0, Novaccurate E 335G30 331730-87-1, Novappusu 770R20
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (**thermoplastic resin** compns. with reduced gas generation during molding containing graft **copolymers** and)
- IT 471-34-1, Calcium carbonate, uses 1309-64-4, Antimony trioxide, uses 9002-84-0, F 201L 9002-88-4D, Polyethylene, chlorinated 13983-17-0, Wollastonite 14807-96-6, Micro Talc MP 10-52, uses 42557-10-8, SH 200 217652-39-6, Nyglos 8 331725-26-9, Daisolac E 230

RL: MOA (Modifier or additive use); USES (Uses)
 (thermoplastic resin compns. with reduced gas generation during molding containing graft copolymers and)

- IT 9003-54-7P, Acrylonitrile-styrene copolymer
 25213-88-1P, Acrylonitrile-methyl methacrylate-styrene copolymer 29762-66-1P, Acrylonitrile-glycidyl methacrylate-styrene copolymer 31621-07-5P,
 Acrylonitrile-N-phenylmaleimide-styrene copolymer
 RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (thermoplastic resin compns. with reduced gas generation during molding containing graft copolymers and)

L155 ANSWER 3 OF 24 HCA COPYRIGHT 2004 ACS on STN
 133:178141 Halogen-free fire-resistant styrene polymer compositions, their manufacture, and their moldings. Tai, Toshihiro (Daicel Chemical Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000230092 A2 20000822, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-33232 19990210.

AB Title compns. are manufactured by mixing (A) styrene polymers, (B) polyamides, (C) carboxy-containing rubber-reinforced styrene polymers, and (D) phosphoric acid derivs. The compns. may comprise 100 parts mixts. of A, B, and C, ≥ 20 parts ammonium polyphosphates, and 0.01-10 parts inorg. fillers. Thus, a composition containing ABS resin 15, maleated ABS resin 15, A 1030BRL (nylon 6)

70, Terraju C 60 (ammonium polyphosphate) 43, and PH Talc (talc) 6.2 parts was kneaded, pelletized, and injection molded to give a test piece showing fire resistance V-0 (UL 94) and notched Izod impact strength 4.5 kg-cm/cm.

IC ICM C08L025-02
 ICS C08K003-26; C08K003-32; C08K003-34; C08L051-04; C08L055-02;
 C08L077-00

CC 37-6 (Plastics Manufacture and Processing)

ST halogen free fire resistance styrene polymer blend; polyamide styrene polymer blend fire resistance; ABS resin nylon 6 compon flame retardance; carboxylated rubber reinforced styrene polymer impact resistance; ammonium polyphosphate fireproofing agent styrene polymer

IT Molded plastics, properties

Polyamides, properties

Polymer blends

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (halogen-free fire- and impact-resistant compns. containing styrene polymers, polyamides, and rubber-reinforced styrene polymers)

IT 110-16-7D, Maleic acid, reaction products with ABS resin 106677-58-1D, ABS resin, maleated

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
 (halogen-free fire- and impact-resistant compns. containing styrene polymers, polyamides, and rubber-reinforced styrene polymers)

IT 25038-54-4, A 1030BRL, properties 106677-58-1, ABS resin

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (halogen-free fire- and impact-resistant compns. containing styrene polymers, polyamides, and rubber-reinforced styrene polymers)

IT 110-16-7D, Maleic acid, reaction products with ABS

resin 106677-58-1D, ABS resin,

maleated

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(halogen-free fire- and impact-resistant compns. containing styrene polymers, polyamides, and rubber-reinforced styrene polymers)IT **106677-58-1, ABS resin**RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(halogen-free fire- and impact-resistant compns. containing styrene polymers, polyamides, and rubber-reinforced styrene polymers)

L155 ANSWER 4 OF 24 HCA COPYRIGHT 2004 ACS on STN

131:323401 Non-halogen **fire-resistant resin****compositions.** Yabuhara, Tadao; Tada, Yuji; Nishioka, Yoichi; Nakano, Shinji; Kameshima, Takashi (Otsuka Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11302512 A2 **19991102** Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-106152 19980416.AB Title compns. comprise (1) 100 parts of a **resin** blend consisting of (A) 40-100 weight% of a **resin** selected from **polycarbonates**, polyesters, and polyamides and (B) 0-60 weight% of a rubbery elastomer, (2) 1-100 phr of a halogen-free phosphoric acid ester, and (3) 1-200 phr of fibers.

IC ICM C08L067-00

ICS C08K005-521; C08K007-04; C08L021-00; C08L069-00; C08L077-00

CC 37-6 (Plastics Manufacture and Processing)

ST **polycarbonate** blend **fire resistant** halogen free; **nylon 6** blend **fire resistant** halogen free; **polybutylene terephthalate** blend **fire resistant** halogen free; **polyester** blend **fire resistant** halogen free; **polyamide** blend **fire resistant** halogen free

IT Synthetic fibers

RL: MOA (Modifier or additive use); USES (Uses)
(**aluminum borate**; non-halogen **fire-resistant resin** compns.)IT **Fire-resistant** materials**Fireproofing** agents
(non-halogen **fire-resistant resin** compns.)IT **Polyamides, properties****Polycarbonates, properties****Polyesters, properties**RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(non-halogen **fire-resistant resin** compns.)IT **Polymer** blendsRL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(non-halogen **fire-resistant resin** compns.)

IT Synthetic fibers

RL: MOA (Modifier or additive use); USES (Uses)
(potassium titanate, Tismo N 102; non-halogen **fire-resistant resin** compns.)

IT Synthetic fibers

RL: MOA (Modifier or additive use); USES (Uses)
(wollastonite; non-halogen **fire-resistant resin** compns.)

- IT 24968-12-5, Polybutylene terephthalate
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(Lumicon 1200S; non-halogen **fire-resistant resin** compns.)
- IT 12673-69-7, Potassium titanate 13983-17-0, NYAD G
RL: MOA (Modifier or additive use); USES (Uses)
(fibers; non-halogen **fire-resistant resin** compns.)
- IT 115-86-6, Triphenyl phosphate 791-28-6, Triphenylphosphine oxide
12005-61-7, Alborex YS 2 57583-54-7 163597-32-8
RL: MOA (Modifier or additive use); USES (Uses)
(non-halogen **fire-resistant resin** compns.)
- IT 25038-54-4, Poly[imino(1-oxo-1,6-hexanediyl)], properties 26062-94-2,
Polybutylene terephthalate **106677-58-1**, Santac UT 61
223482-46-0, Iupilon S 2000N
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(non-halogen **fire-resistant resin** compns.)
- IT **106677-58-1**, Santac UT 61
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(non-halogen **fire-resistant resin** compns.)

L155 ANSWER 5 OF 24 HCA COPYRIGHT 2004 ACS on STN
131:131018 Rigid **thermoplastic** article having soft covering.
Huarng, Roger Jyh-chiarng R.; Hurley, James M. (BASF Corp., USA). U.S. US 5932353 A **19990803**, 8 pp. (English). CODEN: USXXAM.
APPLICATION: US 1997-994785 19971219.

- AB Articles comprise **thermoplastic** nylon materials and **thermoplastic** polyurethane blends capable of adhering to the **thermoplastic** nylon materials, wherein the **thermoplastic** polyurethane blends comprise 3-200 parts **terpolymer** of styrene/ α -methylstyrene/acrylonitrile/C1-C6 alkyl acrylate with glass transition temperature (Tg) <0°, 100 parts **thermoplastic** polyurethane produced from a diisocyanate, a C2-C10 diol, and a polyether and/or polyester-based polyol, and 0-50 parts additives including lubricants, pigments, stabilizers, etc. The articles are power tool housings, luggage handles, gear shifts, automotive pedals, etc. Thus, Elastollan LJ31/122/A (a **thermoplastic** polyurethane) was overmolded on Ultramid B 3ZG6 with peel strength 2.91 kN/m.
- IC ICM B32B027-34
ICS B32B027-40
- NCL 428423500
- CC 38-3 (Plastics Fabrication and Uses)
- ST **thermoplastic** polyurethane blend adhesion polyamide; power tool housing **plastic**; automotive pedal polyurethane blend polyamide; gear shift polyurethane blend polyamide
- IT Glass, uses
Minerals, uses
RL: MOA (Modifier or additive use); USES (Uses)
(-reinforced nylons; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT Urethane rubber, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES

(Uses)

(Elastollan LJ31/122/A and Elastollan LP9156; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Polyamide fibers, uses

RL: MOA (Modifier or additive use); USES (Uses)
(aramid, reinforcing agents; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Azines

RL: TEM (Technical or engineered material use); USES (Uses)
(dyes; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Ceramics

RL: MOA (Modifier or additive use); USES (Uses)
(fibers; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Inorganic compounds

Organic compounds, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fillers; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Carbon fibers, uses

RL: MOA (Modifier or additive use); USES (Uses)
(graphite; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Phenols, uses

RL: MOA (Modifier or additive use); USES (Uses)
(hindered, UV stabilizers; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Amides, uses

Amines, uses
RL: MOA (Modifier or additive use); USES (Uses)
(hindered; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Tools

(housings; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Stabilizing agents

(hydrolysis; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Molding of **plastics** and rubbers

(injection; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Containers

(luggage, handles; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Automobiles

(pedals; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Carbon black, uses

Umber

RL: TEM (Technical or engineered material use); USES (Uses)
(pigments; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Polyurethanes, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polyester-; rigid **thermoplastic** articles containing polyurethane

blends and polyamides having soft coverings)

IT Polyurethanes, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polyether-; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Asbestos
Carbon fibers, uses
Glass beads
Glass fibers, uses
Kaolin, uses
Metallic fibers
Mica-group minerals, uses
RL: MOA (Modifier or additive use); USES (Uses)
(reinforcing agents; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Molding of **plastics** and rubbers
(release agents; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Anthraquinone dyes
Antifoaming agents
Antimicrobial agents
Antioxidants
Antistatic agents
Azo dyes
Biocides
Extrusion of **plastics** and rubbers
Fillers
Fireproofing agents
Fluorescent brighteners
Fluorescent dyes
Heat stabilizers
Impact-resistant materials
Light stabilizers
Lubricants
Odor and Odorous substances
Parting materials
Pigments, nonbiological
Plasticizers
Polymer blend compatibilizers
Thixotropic materials
UV stabilizers
(rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT **Polymer** blends
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT Reinforced **plastics**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

IT **Polyamides**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

- IT Gears
(shift; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT Synthetic fibers
RL: MOA (Modifier or additive use); USES (Uses)
(silica; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT Synthetic fibers
RL: MOA (Modifier or additive use); USES (Uses)
(silicon carbide; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT Hydrolysis
(stabilizers; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT Dyes
(xanthene; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT 25973-55-1, 2-(2-Hydroxy-3,5-di-tert-amyl-phenyl)-2H-benzotriazole
84268-08-6, 1,6-Hexanediyl bis(3-benzotriazol-N-yl)-4-hydroxy-5-tert-butyl)phenylpropionate
RL: MOA (Modifier or additive use); USES (Uses)
(UV stabilizers; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT 9003-54-7, Acrylonitrile-styrene **copolymer**
RL: MOA (Modifier or additive use); USES (Uses)
(compatibilizers; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT 7440-41-7, Beryllium, uses
RL: MOA (Modifier or additive use); USES (Uses)
(fibers, reinforcing agents; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT 7440-42-8, Boron, uses
RL: MOA (Modifier or additive use); USES (Uses)
(filaments, reinforcing agents; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT 147-14-8, Copper phthalocyanine blue 198-55-0, Perylene 475-71-8, Flavanthrone 496-12-8, Isoindoline 522-75-8, Thioindigo 1309-37-1, Iron oxide (Fe₂O₃), uses 1314-13-2, Zinc oxide, uses 1314-98-3, Zinc sulfide, uses 1317-60-8, Hematite, uses 1317-63-1, Limonite 1332-25-8, C.I. Pigment Red 102 1332-37-2, Iron oxide, uses 1344-37-2, Chrome yellow 6448-95-9, Naphthol red 10101-66-3, Manganese violet 11118-57-3, Chromium oxide 12227-89-3, Black iron oxide 12240-15-2, Prussian blue 12769-50-5, Sienna 13463-67-7, Titanium dioxide, uses 13824-63-0, Cobalt lithium phosphate 17409-91-5, Cobalt phosphate 39283-39-1, Quinacridone red 43135-91-7, Benzimidazolone 51274-00-1, Yellow iron oxide 52357-70-7, Brown iron oxide 57455-37-5, Ultramarine 67800-72-0, Chrome green 68186-91-4, Copper chromite black 215247-95-3
RL: TEM (Technical or engineered material use); USES (Uses)
(pigments; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT 1047-16-1, Quinacridone
RL: TEM (Technical or engineered material use); USES (Uses)
(purple, pigments; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT 13983-17-0, Wollastonite 14807-96-6, Talc, uses
RL: MOA (Modifier or additive use); USES (Uses)
(reinforcing agents; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

- IT 233676-11-4, Ultramid B 3ZG6
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT 1328-53-6, Copper phthalocyanine Green 7440-57-5, Gold, uses 9008-66-6
24936-74-1 24937-16-4, Nylon 12 25035-04-5, Nylon 11
25038-54-4, Poly[imino(1-oxo-1,6-hexanediyl)], uses 25038-74-8
25587-80-8 32131-17-2, uses 50327-22-5
RL: TEM (Technical or engineered material use); USES (Uses)
(rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT **9003-54-7**, Acrylonitrile-styrene **copolymer**
RL: MOA (Modifier or additive use); USES (Uses)
(compatibilizers; rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)
- IT **25038-54-4**, Poly[imino(1-oxo-1,6-hexanediyl)], uses
RL: TEM (Technical or engineered material use); USES (Uses)
(rigid **thermoplastic** articles containing polyurethane blends and polyamides having soft coverings)

L155 ANSWER 6 OF 24 HCA COPYRIGHT 2004 ACS on STN

130:140250 Multilayered moldings containing fiber-reinforced thermoplastic resin layers and their manufacture. Iwata, Koichi; Yoshikoshi, Akio (Keplaseat K. K., Japan; Asano Kenkyusho K. K.). Jpn. Kokai Tokkyo Koho JP 11020017 A2 **19990126** Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-178494 19970703.

AB Title light-weight moldings, with good design and mech strength, are prepared from laminates of designed thermoplastic sheets and fiber-reinforced thermoplastic sheets by independently controlling the molding temperature of each layer and simultaneously molding under pressure difference. A fiber-reinforced KP sheet was laminated with a designed methacrylic sheet through an adhesive, clamped, sep. heated the sheets to the desired temperature,
and vacuum molded to give a box with good surface design and high impact strength.

IC ICM B29C051-42
ICS B29C051-12; B29C051-14; B29C051-46; B29K101-12; B29K105-08;
B29L009-00

CC 38-3 (Plastics Fabrication and Uses)

IT **Crystal whiskers**
(manufacture of fiber-reinforced thermoplastic-containing multilayered moldings
with independent temperature control of each layer)

IT **Carbon fibers**, uses
Glass fibers, uses
Metallic fibers
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(manufacture of fiber-reinforced thermoplastic-containing multilayered moldings
with independent temperature control of each layer)

IT **Polyamides**, uses
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(manufacture of fiber-reinforced thermoplastic-containing multilayered moldings
with independent temperature control of each layer)

IT **Polymer blends**

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(manufacture of fiber-reinforced thermoplastic-containing multilayered moldings
with independent temperature control of each layer)

IT 9002-86-2, PVC 9002-88-4, Polyethylene 9003-07-0, Polypropylene
9003-53-6, Polystyrene 9003-56-9, **ABS polymer**
27967-29-9, KP
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(manufacture of fiber-reinforced thermoplastic-containing multilayered moldings
with independent temperature control of each layer)

L155 ANSWER 7 OF 24 HCA COPYRIGHT 2004 ACS on STN

128:76288 Coextruded multilayer polyamide film structure. Tsai, Mingliang Lawrence; Altman, Carl Elliot; Degrassi, Alfieri; Mennig, John; Messa, Anthony Francis (AlliedSignal Inc., USA). PCT Int. Appl. WO 9747468 A1 19971218, 31 pp. DESIGNATED STATES: W: AU, BR, CA, CN, IL, JP, KR, MX; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1997-US10161 19970610. PRIORITY: US 1996-19584 19960610; US 1997-865945 19970530.

AB The film, useful as release and barrier films for sheet molding and reinforced plastic applications, comprises ≥1 a polyamide layer and a polyolefin layer comprising a blend of an olefin polymer having ≥1 functional moiety of an unsatd. carboxylic acid and/or anhydride and an adhesive. The coextruded films are typically prepared by a blown film technique. Thus, coextruding **nylon 6** (core) and a polymer blend of unmodified polyethylene (polyethylene) and a modified polyethylene (maleated polyethylene) gave a 3-layered film with good bonding properties.

IC ICM B32B027-32
ICS B32B027-34

CC 38-3 (Plastics Fabrication and Uses)

IT Extrusion of plastics and rubbers
Laminated plastics, uses

Polyamides, uses

Polymer blends
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(coextruded multilayer polyamide film structure)

IT 74-85-1D, Ethene, diene copolymer, uses 79-10-7D, 2-Propenoic acid, esters, polymers, uses 79-41-4D, esters, polymers 97-65-4D, reaction products with olefin polymers 108-05-4D, Acetic acid ethenyl ester, olefin copolymer, uses 108-31-6D, 2,5-Furandione, reaction products with olefin polymers, uses 110-16-7D, 2-Butenedioic acid (Z)-, reaction products with olefin polymers 110-17-8D, 2-Butenedioic acid (E)-, reaction products with olefin polymers 115-07-1D, 1-Propene, diene copolymer, uses 498-23-7D, Citraconic acid, reaction products with olefin polymers 623-68-7D, Crotonic anhydride, reaction products with olefin polymers 2170-03-8D, reaction products with olefin polymers 3724-65-0D, 2-Butenoic acid, reaction products with olefin polymers 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-27-4, Polyisobutylene 9003-28-5, Poly(1-butene) 9003-29-6, Polybutylene 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 9010-79-1, Ethylene-propylene copolymer 9082-22-8, Ethylene-pentene copolymer 25068-26-2, Poly(4-methyl-1-pentene) 25085-05-6, Poly(3-methyl-1-butene)

25087-34-7, Butene-ethylene copolymer 25213-02-9, Escorene LL 3001
 25587-79-5, Poly(1-pentene) 28516-43-0, Surlyn 9721 50981-41-4,
 Polyhexene 200578-51-4, Flexomer DEFA 1373
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (coextruded multilayer polyamide film structure)

IT 9008-66-6, Poly(hexamethylene sebacamide) 9011-52-3,
 Hexamethylenediamine-sebacic acid copolymer 24937-16-4,
 Poly[imino(1-oxo-1,12-dodecanediyl)] 24938-03-2 24938-09-8,
 Poly(p-xylylene adipamide) 24938-56-5, Poly[imino(1-oxo-1,4-butanediyl)]
 24938-70-3, Poly(hexamethylene terephthalamide) 24938-72-5 24993-04-2
 25035-01-2, Poly[imino(1-oxo-1,7-heptanediyl)] 25035-03-4,
 Poly[imino(1-oxo-1,9-nonanediyl)] 25035-04-5, Poly(11-aminoundecanoic
 acid) 25038-54-4, Nylon 6, uses 25587-80-8
 25668-34-2 25718-70-1, Hexanedioic acid-1,3-benzenedimethanamine polymer
 25722-07-0 25748-71-4, Poly(7-aminoheptanoic acid) 25748-72-5,
 Poly(9-aminononanoic acid) 25768-33-6, Poly(12-aminododecanoic acid)
 25805-74-7 26009-07-4, Poly(dodecamethylene terephthalamide)
 26098-36-2 26970-31-0, Poly[imino(1-oxo-1,10-decanediyl)] 27136-65-8,
 Poly(hexamethylene azelamide) 27306-05-4, Poly(10-aminodecanoic acid)
 28757-63-3 31781-02-9, Heptamethylenediamine-pimelic acid copolymer
 31781-04-1 32131-17-2, Poly(hexamethylene adipamide), uses 32473-30-6,
 Poly(heptamethylene pimelamide) 33180-14-2 33182-52-4,
 Poly(nonamethylene azelamide) 33182-53-5, Poly(octamethylene suberamide)
 34031-56-6 53504-43-1, Poly(4-aminobutyric acid) 98241-67-9
 98260-90-3 200496-72-6
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (coextruded multilayer polyamide film structure)

IT **110-16-7D**, 2-Butenedioic acid (Z)-, reaction products with olefin
 polymers **9003-56-9**, Acrylonitrile-butadiene-styrene copolymer
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (coextruded multilayer polyamide film structure)

L155 ANSWER 8 OF 24 HCA COPYRIGHT 2004 ACS on STN

128:49012 **Thermoplastic** compounds with excellent compatibility and
 adhesive properties. Sorensen, Kent; Pettersson, Bo; Boogh, Louis;
 Mansson, Jan-Anders Edvin (Perstorp AB, Swed.). PCT Int. Appl. WO 9745474
 A1 **19971204**, 74 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ,
 BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH,
 HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,
 MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR,
 TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT,
 BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT,
 LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2.
 APPLICATION: WO 1997-SE822 19970521. PRIORITY: SE 1996-2019 19960528.

AB The title compds. comprise ≥ 1 linear or branched
thermoplastic polymer, having ≥ 1 reactive or
 graftable site (F1) and compounded with ≥ 1 hyperbranched dendritic
 polyester macromol. composed of a monomeric or **polymeric** nucleus
 and one or more monomeric or **polymeric** branching or spacing
 chain extenders. The macromol. is optionally chain terminated and/or
 functionalized, whereby terminal chain extender functions, chain
 termination and/or functionalization provides the macromol. with ≥ 1
 reactive or graftable site (F2) reactive to F1. A **thermoplastic**
 compound was prepared from polypropylene, a maleated polypropylene, and a
 hyperbranched dendritic polyester macromol. from ethoxylated

pentaerythritol and 2,2-dimethylolpropionic acid and blended with nylon 6.

IC ICM C08G081-00
ICS C08G063-20

CC 37-6 (Plastics Manufacture and Processing)

ST **thermoplastic** compd compatibility adhesive property; hyperbranched dendritic polyester macromol **thermoplastic** compd

IT Phenolic resins, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(aminoplast-; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Polyamide fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(aramid; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Carboxylic acids, reactions
Fatty acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(chain stopper; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Fatty acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(dehydrated castor-oil, chain stopper; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Polyvinyl acetals
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(formals; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Carbon fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(graphite; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Fatty acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(linseed-oil, chain stopper; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Glass, uses
RL: MOA (Modifier or additive use); USES (Uses)
(particles; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Automobiles
(parts; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Carboxylic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(peroxy; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Aminoplasts
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(phenolic; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Epoxides
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polyepoxides; **thermoplastic** compds. with excellent

- compatibility and adhesive properties)
- IT Polyimides, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polyether-; **thermoplastic** compds. with excellent compatibility and adhesive properties)
- IT Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polyimide-; **thermoplastic** compds. with excellent compatibility and adhesive properties)
- IT Fatty acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(soya, chain stopper; **thermoplastic** compds. with excellent compatibility and adhesive properties)
- IT Metallic fibers
RL: MOA (Modifier or additive use); USES (Uses)
(steel; **thermoplastic** compds. with excellent compatibility and adhesive properties)
- IT Aircraft
Composites
Construction materials
Electric appliances
Fillers
Fireproofing agents
Household furnishings
Impact-resistant materials
Lubricants
Oxidizing agents
Pigments, nonbiological
Ships
Sporting goods
(**thermoplastic** compds. with excellent compatibility and adhesive properties)
- IT Dendritic **polymers**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**thermoplastic** compds. with excellent compatibility and adhesive properties)
- IT Laminated **plastics**, preparation
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**thermoplastic** compds. with excellent compatibility and adhesive properties)
- IT **Carbon fibers**, uses
Chalk
Glass fibers, uses
Mica-group minerals, uses
Silanes
Synthetic polymeric fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**thermoplastic** compds. with excellent compatibility and adhesive properties)
- IT Aminoplasts
Fluoropolymers, properties
Phenolic resins, properties
Polyamides, properties

Polyamines

Polycarbonates, properties

 Polyesters, properties

 Polyimides, properties

 Polyolefins

 Polyoxyalkylenes, properties

 Polyoxymethylenes, properties

 Polyoxyphenylenes

 Polysiloxanes, properties

 Polysulfones, properties

 Polythiophenylenes

 Polyvinyl butyrals

 Synthetic rubber, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

 (**thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Peroxy acids

RL: RCT (Reactant); RACT (Reactant or reagent)

 (**thermoplastic** compds. with excellent compatibility and adhesive properties)

IT **Plastics**, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

 (**thermosetting; thermoplastic** compds. with excellent compatibility and adhesive properties)

IT Polyesters, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

 (unsatd.; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT 25085-53-4

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

 (Appryl 3050MN1; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT 64-18-6, Formic acid, reactions 64-19-7, Acetic acid, reactions

65-85-0, Benzoic acid, reactions 79-09-4, Propanoic acid, reactions

79-10-7, 2-Propenoic acid, reactions 79-41-4, reactions 91-08-7

98-73-7 103-71-9, reactions 106-89-8, reactions 106-95-6, reactions

107-92-6, Butanoic acid, reactions 110-44-1 112-85-6, Docosanoic acid

124-07-2, Octanoic acid, reactions 142-62-1, Hexanoic acid, reactions

143-07-7, Dodecanoic acid, reactions 334-48-5, Decanoic acid 506-48-9,

Octacosanoic acid 514-10-3 584-84-9 682-09-7 822-06-0 1121-97-7

1471-17-6 3524-68-3 3583-47-9 3724-65-0, 2-Butenoic acid 4098-71-9

5187-23-5 29595-46-8 133751-08-3 188132-09-4

RL: RCT (Reactant); RACT (Reactant or reagent)

 (chain stopper; **thermoplastic** compds. with excellent compatibility and adhesive properties)

IT 199943-98-1DP, epoxidized 245662-64-0P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

 (Properties); TEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)

 (**thermoplastic** compds. with excellent compatibility and adhesive properties)

IT 919-30-2 7782-42-5, Graphite, uses

RL: MOA (Modifier or additive use); USES (Uses)

 (**thermoplastic** compds. with excellent compatibility and adhesive properties)

adhesive properties)

IT 108-31-6D, 2,5-Furandione, reaction products with polypropylene
 9002-83-9 9002-84-0 9002-85-1 9002-86-2 9002-88-4 9002-89-5
 9003-01-4 9003-07-0D, maleated 9003-08-1 9003-20-7 9003-22-9
 9003-27-4 9003-29-6 9003-35-4 9003-39-8 9003-53-6 9003-55-8
9003-56-9 9004-32-4 9004-34-6, Cellulose, properties
 9004-35-7 9004-36-8 9004-39-1 9004-48-2 9004-70-0 9010-79-1
 9010-86-0 9011-05-6 9011-06-7 9011-11-4 9011-14-7 24937-78-8
 24937-79-9 24968-12-5 24981-14-4 25014-41-9 25035-78-3
 25035-98-7 25037-78-9 25038-54-4, Poly[imino(1-oxo-1,6-hexanediyl)],
 properties 25038-59-9, properties 25053-15-0 25067-11-2 25067-59-8
 25068-26-2 25087-26-7 25322-68-3 25322-69-4 26062-94-2
 30396-85-1 136363-24-1, Orevac PP-C
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (**thermoplastic** compds. with excellent compatibility and
 adhesive properties)

IT 79-21-0, Ethaneperoxoic acid 93-59-4, Benzenecarboperoxoic acid
 107-32-4, Methaneperoxoic acid 359-48-8 937-14-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (**thermoplastic** compds. with excellent compatibility and
 adhesive properties)

IT **9003-56-9**
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (**thermoplastic** compds. with excellent compatibility and
 adhesive properties)

L155 ANSWER 9 OF 24 HCA COPYRIGHT 2004 ACS on STN
 126:75712 **Resin compositions** with improved mechanical
 properties, heat distortion temperature, and mold shrinkage for sliding
 parts. Tasaka, Takio; Kawaguchi, Akyoshi; Tsujikawa, Yosaburo; Takarada,
 Akira (Otsuka Kagaku Kk, Japan). Jpn. Kokai Tokkyo Koho JP 08283494 A2
19961029 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION:
 JP 1995-86703 19950412.

AB The compns. contain **thermoplastic resins**, powdered
 polyethylene (I), whisker-type reinforcing fibers, and modified
 polyolefins. Thus, **Nylon** 2020UWI (**nylon** 66) 92.0,
 Hizex 5000 (HDPE) 2.5, **N-Polymer L** 6100M (**maleic**
 anhydride-modified I) 0.5, and Tismo D 102 (K titanate whisker) 5.0 parts
 were mixed, pelletized, and injection molded to give test pieces showing
 tensile strength 860 kg/cm², flexural strength 1290 kg/cm², and dynamic
 friction coefficient 0.28.

IC ICM C08L023-26
 ICS C08K007-04; C08L023-04; C08L101-00; C10M169-04; C10M107-04;
 C10M107-44; C10M107-46; C10M125-10; C10M125-02; C10M125-26;
 C10M145-02; C10M149-02; C10N010-02; C10N010-04; C10N010-06;
 C10N010-08; C10N020-04; C10N020-06; C10N040-02

CC 37-6 (Plastics Manufacture and Processing)

ST polyolefin **thermoplastic resin** blend reinforcement
 whisker; sliding polyolefin **thermoplastic resin** blend
 whisker

IT **Polyamides, properties**
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (**2020UW1**; **thermoplastic resin** and powdered
 polyethylene compns. containing fiber whiskers and modified polyolefins for
 sliding parts with good mech. properties)

- IT Glass fibers, properties
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(Glasron 03MA411; **thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT Synthetic fibers
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(potassium titanate, Tismo N 102; **thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT Synthetic fibers
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(silicon carbide; **thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT Abrasion-resistant materials
Crystal whiskers
Friction materials
Polymer blend compatibilizers
(**thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT **Plastics, preparation**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT **Carbon fibers, properties**
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT **Polyamides, properties**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT **Polycarbonates, properties**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT **Polyesters, properties**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)
- IT **Polyoxyphenylenes**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or

- engineered material use); USES (Uses)
(**thermoplastic resin** and powdered polyethylene compns.
containing fiber whiskers and modified polyolefins for sliding parts with
good mech. properties)
- IT Polythiophenylenes
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(**thermoplastic resin** and powdered polyethylene compns.
containing fiber whiskers and modified polyolefins for sliding parts with
good mech. properties)
- IT 32131-17-2, Nylon 66, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(2020UW1; **thermoplastic resin** and powdered
polyethylene compns. containing fiber whiskers and modified polyolefins for
sliding parts with good mech. properties)
- IT 25212-74-2, Tohpren 4
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(Tohpren 4; **thermoplastic resin** and powdered
polyethylene compns. containing fiber whiskers and modified polyolefins for
sliding parts with good mech. properties)
- IT 108-31-6D, 2,5-Furandione, reaction products with polyolefins, properties
9002-88-4D, Polyethylene, maleated **106826-13-5**, Modiper A 1401
125387-71-5, N-Polymer L 6100M
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(compatibilizers; **thermoplastic resin** and powdered
polyethylene compns. containing fiber whiskers and modified polyolefins for
sliding parts with good mech. properties)
- IT 152462-56-1, Modiper A 8200
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(compatibilizers; **thermoplastic resin** and powdered
polyethylene compns. containing fiber whiskers and modified polyolefins for
sliding parts with good mech. properties)
- IT 9002-88-4, Hizex 5000
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(high-d.; **thermoplastic resin** and powdered
polyethylene compns. containing fiber whiskers and modified polyolefins for
sliding parts with good mech. properties)
- IT 24936-68-3, Iupilon S 2000, properties 24937-16-4, Daiamid L 1940
24968-12-5, Duranex 2000 25037-45-0, Bisphenol A-carbonic acid
copolymer 25038-74-8, Azacyclotridecan-2-one **homopolymer**
25718-70-1, **Adipic** acid-m-xylylenediamine **copolymer**
25776-72-1, Arlen C 2000 25805-74-7, Reny 6001 26061-90-5, Rexpearl J
3700 26062-94-2, Butylene glycol-terephthalic acid **copolymer**
126730-46-9, Duracon M 90-44 135751-40-5, Xyron 300H
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(**thermoplastic resin** and powdered polyethylene compns.
containing fiber whiskers and modified polyolefins for sliding parts with
good mech. properties)
- IT 409-21-2, Silicon carbide, properties 1344-95-2, Nyglos I 10013
10028-26-9 **11121-16-7**, Alborex Y 12619-64-6, Magnesium borate
12673-69-7, Potassium titanate 127121-44-2, Tismo D 102
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or

engineered material use); USES (Uses)
(whiskers; **thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)

IT 106826-13-5, Modiper A 1401

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(compatibilizers; **thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)

IT 11121-16-7, Alborex Y

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(whiskers; **thermoplastic resin** and powdered polyethylene compns. containing fiber whiskers and modified polyolefins for sliding parts with good mech. properties)

L155 ANSWER 10 OF 24 HCA COPYRIGHT 2004 ACS on STN

124:10135 Modification of bulk polymers with metal catalyzed ionic polymerization. Aguirre, Juan E. (USA). PCT Int. Appl. WO 9523826 A1 19950908, 25 pp. DESIGNATED STATES: W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1995-US2585 19950301.

PRIORITY: US 1994-204783 19940302.

AB Bulk polymers, including polyethylene, polypropylene, PVC, natural rubber and the like, are initially treated with a short chain organic acid, having a carboxylic group (with dissociation constant between 10⁻² to 10⁻⁶ cm⁻¹, and less

than 8 carbons), an oxide, peroxide, hydroxide or halogen compound of a Group IA, IIA or IIB metal, or the metal itself (preferably a divalent alkaline earth metal) for forming a metal ligand or complete metal salt of the acid. The bulk polymers, are thoroughly mixed with the complex metal salts, such as in an extruder, and free radicals are introduced into the mixture, such as by means of addition of a highly oxidizing material, such as a peroxide, to functionalize the bulk polymer with ionic polymerization sites,

with

a resultant homopolymer formation between the organic metal salt anion and the bulk polymer, as catalyzed by the metal cation at such sites. The polymerization is a substantially noncrosslinked ionic one resulting from the dissociation parameters and short chain length of the complex metal salt. The metal salt anion appears to fill in gaps in the bulk polymer but without crosslinking. Resultant homopolymer materials including those containing bulk polymers show improvement in flow rate, elongation and tensile strength over the original bulk polymer materials, and natural rubber behaves like a thermoplastic polymer.

IC ICM C08K005-14

ICS C08K005-09; C08K005-098

CC 37-3 (Plastics Manufacture and Processing)

IT Epoxy resins, preparation

Fluoropolymers

Polyamides, preparation

Polycarbonates, preparation

Polythiophenylenes

Rubber, butadiene-styrene, preparation

Rubber, natural, preparation

Siloxanes and Silicones, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)

(reaction products, with carboxylic acid salts; functionalization of polymers with carboxylic acid salts for improved phys. properties)

IT 50-21-5DP, Lactic acid, metal salts, reaction products with polymers
77-92-9DP, Citric acid, metal salts, reaction products with polymers
79-10-7DP, Acrylic acid, metal salts, reaction products with polymers
88-99-3DP, Phthalic acid, metal salts, reaction products with polymers
110-15-6DP, Succinic acid, metal salts, reaction products with polymers **110-16-7DP**, Maleic acid, metal salts, reaction products with polymers **110-94-1DP**, Glutaric acid, metal salts, reaction products with polymers 141-82-2DP, Malonic acid, metal salts, reaction products with polymers 9003-29-6DP, Polybutylene, reaction products with carboxylic acid salts 9003-53-6DP, Polystyrene, reaction products with carboxylic acid salts 9003-54-7DP, Acrylonitrile-styrene copolymer, reaction products with carboxylic acid salts **9003-56-9DP**, **ABS polymer**, reaction products with carboxylic acid salts 9004-35-7DP, Cellulose acetate, reaction products with carboxylic acid salts 9004-70-0DP, Cellulose nitrate, reaction products with carboxylic acid salts 9008-66-6DP, Nylon 610, reaction products with carboxylic acid salts 9010-79-1DP, Ethylene-propylene copolymer, reaction products with carboxylic acid salts 9011-52-3DP, Hexamethylenediamine-sebacic acid copolymer, reaction products with carboxylic acid salts 24936-74-1DP, Nylon 612, reaction products with carboxylic acid salts 24937-16-4DP, Nylon 12, reaction products with carboxylic acid salts 25035-04-5DP, Nylon 11, reaction products with carboxylic acid salts 25038-54-4DP, **Nylon 6**, reaction products with carboxylic acid salts 25038-74-8DP, reaction products with carboxylic acid salts 25212-74-2DP, Poly(phenylene sulfide), reaction products with carboxylic acid salts 25587-80-8DP, reaction products with carboxylic acid salts 26098-55-5DP, reaction products with carboxylic acid salts 32131-17-2DP, Nylon 66, reaction products with carboxylic acid salts

RL: IMF (Industrial manufacture); PREP (Preparation)

(functionalization of polymers with carboxylic acid salts for improved phys. properties)

IT **110-15-6DP**, Succinic acid, metal salts, reaction products with polymers **110-16-7DP**, Maleic acid, metal salts, reaction products with polymers **110-94-1DP**, Glutaric acid, metal salts, reaction products with polymers **9003-56-9DP**, **ABS polymer**, reaction products with carboxylic acid salts
RL: IMF (Industrial manufacture); PREP (Preparation)

(functionalization of polymers with carboxylic acid salts for improved phys. properties)

L155 ANSWER 11 OF 24 HCA COPYRIGHT 2004 ACS on STN
122:189587 Recycling of thermoplastic wastes using monomers as solvents.
Illing, Gerhard (Germany). Ger. Offen. DE 4309427 A1 **19940929**,
4 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1993-4309427 19930324.
AB Thermoplastic wastes (e.g., polyamides or polystyrene) are dissolved in monomers (e.g., caprolactam or styrene), separated from insol. materials, purified, and polymerized to give products such as hot-melt adhesives and foam moldings. A heated mixture of caprolactam, adipic acid, adipic acid hexamethylenediamine salt, and trimethylhexamethylenediamine was used as the solvent in the recycling of polyamide (e.g., **nylon 6**, 12, and/or 66) wastes.

IC ICM C08J011-04
ICS C08F291-00; C08G085-00; B29B017-02

ICA C08G081-00; C08F293-00
CC 38-1 (Plastics Fabrication and Uses)
IT **Polyamides, processes**
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process);
PROC (Process)
(monomers as solvents in recycling of waste)
IT 105-60-2, Caprolactam, processes **124-04-9**, Adipic acid,
processes 3323-53-3, Adipic acid hexamethylenediamine salt 25513-64-8
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process);
PROC (Process)
(as solvent-monomer in recycling of polyamide wastes)
IT 24937-16-4, Nylon 12 25038-54-4, **Nylon 6**, processes
25038-74-8, Azacyclotridecan-2-one polymer 32131-17-2, Nylon 66,
processes
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process);
PROC (Process)
(monomers as solvents in recycling of waste)
IT **106677-58-1P**, ABS graft polymer
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical
process); PREP (Preparation); PROC (Process)
(preparation of recycled SAN-containing)
IT **124-04-9**, Adipic acid, processes
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process);
PROC (Process)
(as solvent-monomer in recycling of polyamide wastes)
IT **106677-58-1P**, ABS graft polymer
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical
process); PREP (Preparation); PROC (Process)
(preparation of recycled SAN-containing)

L155 ANSWER 12 OF 24 HCA COPYRIGHT 2004 ACS on STN

121:58873 **Fire-resistant styrene polymer**
compositions. Motai, Masaaki; Ishikawa, Munehiko; Hirata,
Hiroshi; Furuyama, Kenju (Japan Synthetic Rubber Co Ltd, Japan). Jpn.
Kokai Tokkyo Koho JP 06057070 A2 **19940301** Heisei, 10 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-213826 19920811.
AB The compns. with reduced gas generation on injection molding, comprise (A)
5-88% styrene **polymers** obtained by **polymerizing** aromatic vinyl
compds. or their mixts. with other vinyl comonomers in the presence or
absence of elastomeric **polymers**, (B) 10-65% polyamides and/or
thermoplastic polyesters, (C) 2-30% halogenated poly(phenylene
ethers), and (D) 0-60% inorg. fillers. Thus, 36 parts styrene (I) and 14
parts (as solid) polybutadiene (III) latex to give a **polymer**,
15.0 parts of which was blended with 73:27 I-II **copolymer** 8.0,
29:11:10:50 I-II-methacrylic acid-III **copolymer** 5.0, MC 100LY
(polyamide 6) 40.0, PO 64P 20.0, HTR-C 6NRS (**carbon**
fibers) 12.0, and Sb2O3 5.0 parts, pelletized, and injection
molded to give a test piece showing breaking strength 40 kg-mm, flow 140
cm, UL-94 **fire resistance** V-0, good adhesion to a
urethane coating, and reduced gas generation.
IC ICM C08L025-08
ICS C08L025-08; C08K003-00; C08L051-04; C08L055-02; C08L067-02;
C08L071-12; C08L077-00
CC 37-6 (Plastics Manufacture and Processing)
ST **ABS** polyamide polyoxyphenylene blend **fireproofing**;
polyester **ABS** polyoxyphenylene blend **fireproofing**;
impact resistance **ABS** polyamide polyoxyphenylene; coatability

- IT styrene **polymer** polyamide blend
IT Impact-resistant materials
 (blends of polyamides or polyesters and styrene **polymers**,
 fireproofed by halo-containing polyoxyphenylenes as)
IT Plastics
RL: USES (Uses)
 (blends of polyamides or polyesters and styrene **polymers**,
 fireproofed by halo-containing polyoxyphenylenes, with good
 coatability and impact resistance)
IT Carbon fibers, uses
Glass fibers, uses
RL: USES (Uses)
 (fillers, for halo-containing polyoxyphenylene-**fireproofed**
 styrene **polymer** blends, with good coatability and impact
 resistance)
IT Fireproofing agents
 (halo-containing polyoxyphenylenes, for blends of styrene **polymers**
 and polyamides of polyesters, with good coatability and impact
 resistance)
IT Polyamides, miscellaneous
Polyesters, miscellaneous
RL: MSC (Miscellaneous)
 (styrene **polymer** blends, **fireproofed** by halo-containing
 polyoxyphenylenes, with good coatability and impact resistance)
IT Polyoxyphenylenes
RL: USES (Uses)
 (halogen-containing, **fireproofing** agents, for blends of styrene
 polymers and polyamides or polyesters, with good coatability
 and impact resistance)
IT 7440-44-0
RL: USES (Uses)
 (**carbon fibers**, fillers, for halo-containing
 polyoxyphenylene-**fireproofed** styrene **polymer**
 blends, with good coatability and impact resistance)
IT 74082-93-2, PO 64P
RL: USES (Uses)
 (**fireproofing** agents, for blends of styrene **polymers**
 and polyamides or polyesters, with good coatability and impact
 resistance)
IT 9003-54-7P, Acrylonitrile-styrene **copolymer**
25034-86-0P, Methyl methacrylate-styrene **copolymer**
106677-58-1P, Acrylonitrile-butadiene-styrene graft
copolymer 111930-32-6P, Acrylonitrile-butadiene-
methacrylic acid-styrene graft **copolymer**
RL: PREP (Preparation)
 (preparation of, blends with polyamides or polyesters, **fireproofed**
 by halo-containing polyoxyphenylenes, with good coatability and impact
 resistance)
IT 25038-54-4, Polyamide 6, uses
RL: USES (Uses)
 (styrene **polymer** blends, MC 100LY, **fireproofed** by
 halo-containing polyoxyphenylenes, with good coatability and impact
 resistance)
IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2,
1,4-Butanediol-terephthalic acid **copolymer**
RL: USES (Uses)
 (styrene **polymer** blends, **fireproofed** by halo-containing
 polyoxyphenylenes, with good coatability and impact resistance)

IT **7440-44-0**

RL: USES (Uses)

(carbon fibers, fillers, for halo-containing polyoxyphenylene-**fireproofed** styrene **polymer** blends, with good coatability and impact resistance)IT **9003-54-7P**, Acrylonitrile-styrene **copolymer****106677-58-1P**, Acrylonitrile-butadiene-styrene graft **copolymer** **111930-32-6P**, Acrylonitrile-butadiene-methacrylic acid-styrene graft **copolymer**

RL: PREP (Preparation)

(preparation of, blends with polyamides or polyesters, **fireproofed** by halo-containing polyoxyphenylenes, with good coatability and impact resistance)IT **25038-54-4**, Polyamide 6, uses

RL: USES (Uses)

(styrene **polymer** blends, MC 100LY, **fireproofed** by halo-containing polyoxyphenylenes, with good coatability and impact resistance)

L155 ANSWER 13 OF 24 HCA COPYRIGHT 2004 ACS on STN

120:193311 Heat- and impact-resistant **thermoplastic resin****compositions**. Mota, Masaaki; Iwata, Motoo; Furuyama, Kenju (Japan Synthetic Rubber Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 05262955 A2 **19931012** Heisei, 8 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1992-91606 19920317.

AB The title compns. with good mold releasability comprise 100 parts mixts. of styrene **polymers** 20-95, other **thermoplastic resins** 0-77, and inorg. fillers 3-60% and 0.05-10 parts oxidized polyolefin waxes. Compns. containing halogenated epoxy oligomers and/or **polymers** (3-50%) instead of the fillers are also claimed. Thus, acrylonitrile-butadiene-styrene graft **copolymer** 50, acrylonitrile-styrene **copolymer** 30, glass fiber chopped strands 20, and oxidized polyethylene wax (number-average mol. weight 2000) 0.5 part

were

kneaded, pelletized, and injection molded to give a test piece showing Izod impact strength 10 kg-cm/cm, mold releasability 20 kg/cm², and good heat resistance.

IC ICM C08L055-02

ICS C08L051-04; C08L055-02; C08L063-00; C08L101-00

ICI C08L051-04, C08L023-30

CC 37-6 (Plastics Manufacture and Processing)

ST heat resistance **thermoplastic resin**; impact strength**thermoplastic resin**; oxidized polyolefin wax**thermoplastic blend**; mold releasability wax **thermoplastic resin**

IT Carbon fibers, uses

RL: USES (Uses)

(fillers, HTA-C 6SRS, **thermoplastic resin** compns.

containing, heat- and impact-resistant, with good mold releasability)

IT Glass fibers, uses

RL: USES (Uses)

(fillers, **thermoplastic resin** compns. containing, heat- and impact-resistant, with good mold releasability)IT **Fireproofing agents**(halogenated epoxy **resins**, **thermoplastic resins** containing, heat- and impact-resistant, with good mold releasability)

IT Polycarbonates, uses

Polyesters, uses
RL: USES (Uses)
(**thermoplastic resin** blends, containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)

IT Heat-resistant materials
Impact-resistant materials
(**thermoplastic resin** compns. containing oxidized polyolefin waxes, with good mold releasability)

IT Epoxy resins, uses
RL: USES (Uses)
(halogen-containing, **fireproofing** agents, **thermoplastic resins** containing, heat- and impact-resistant, with good mold releasability)

IT Rubber, synthetic
RL: USES (Uses)
(polyamide-polyoxyalkylene, **thermoplastic resin** blends, containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)

IT Alkenes, polymers
RL: USES (Uses)
(**polymers**, oxidized, **thermoplastic resins** containing, heat- and impact-resistant, with good mold releasability)

IT Plastics
RL: USES (Uses)
(thermo-, containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)

IT 7440-44-0
RL: USES (Uses)
(**carbon fibers**, fillers, HTA-C 6SRS, **thermoplastic resin** compns. containing, heat- and impact-resistant, with good mold releasability)

IT 9003-54-7, Acrylonitrile-styrene copolymer
RL: USES (Uses)
(containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)

IT 14807-96-6, Talc, uses
RL: USES (Uses)
(fillers, **thermoplastic resin** compns. containing, heat- and impact-resistant, with good mold releasability)

IT 40039-93-8
RL: USES (Uses)
(**fireproofing** agents, **thermoplastic resins** containing, heat- and impact-resistant, with good mold releasability)

IT 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer 111930-32-6P, Acrylonitrile-butadiene-methacrylic acid-styrene graft copolymer 129698-81-3P, Acrylonitrile-butadiene-2-hydroxyethyl methacrylate-styrene graft copolymer
RL: PREP (Preparation)
(preparation of, containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)

IT 107087-30-9
RL: USES (Uses)
(rubber, **thermoplastic resin** blends, containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)

IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4, Amilan CM

- 1017, uses 30965-26-5
RL: USES (Uses)
(thermoplastic resin blends, containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)
- IT 9002-88-4D, Polyethylene, oxidized
RL: USES (Uses)
(waxes, thermoplastic resins containing, heat- and impact-resistant, with good mold releasability)
- IT 7440-44-0
RL: USES (Uses)
(carbon fibers, fillers, HTA-C 6SRS, thermoplastic resin compns. containing, heat- and impact-resistant, with good mold releasability)
- IT 9003-54-7, Acrylonitrile-styrene copolymer
RL: USES (Uses)
(containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)
- IT 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer 111930-32-6P, Acrylonitrile-butadiene-methacrylic acid-styrene graft copolymer 129698-81-3P, Acrylonitrile-butadiene-2-hydroxyethyl methacrylate-styrene graft copolymer
RL: PREP (Preparation)
(preparation of, containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)
- IT 25038-54-4, Amilan CM 1017, uses
RL: USES (Uses)
(thermoplastic resin blends, containing oxidized polyolefin waxes, heat- and impact-resistant, with good mold releasability)

L155 ANSWER 14 OF 24 HCA COPYRIGHT 2004 ACS on STN

119:227585 Fiber-reinforced thermoplastic resin sheets and their manufacture. Matsuda, Tsutomu; Goto, Akira; Shibata, Tatsuya (Teijin Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 05117411 A2 19930514 Heisei, 14 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-104658 19920423. PRIORITY: JP 1991-117880 19910423; JP 1991-136990 19910514.

AB The sheets are laminates of ≥ 1 layers of continuous carbon fiber-reinforced thermoplastic and ≥ 1 layers of heat-resistant fiber (HRF)-reinforced thermoplastic in which the fibers are arranged in perpendicular directions (with interlacing strength $\geq 1.0 \text{ kg/mm}^2$), uniformly distributed, and free of voids with diameter greater than the fiber diameter. The HRF (nonwoven or mat, with bulk d. ≥ 8 and O index $\geq 28\%$) are aramid, aromatic polyester, PAN, polybenzimidazole, PET, poly(ethylene 2,6-naphthalate), or cellulosic fibers, and the resins are polyethylene, polypropylene, PVC, polycarbonates (PC), PET, PBT, nylon 6, nylon 66, polyphenylene sulfide, ABS, or copolymers of monomers involved in these. Fire-retardant sheets are obtained by filling the composite sheets (containing 10-20 volume% fibers) with fire retardants. The resins (powders or film) are inserted between the carbon fabrics and the HRF in a sym. manner and then compression-molded on heating above the m.p. of the resins with a press to give (bent) sheets. Thus, carbon fiber cloths and Conex aramid fiber spun laces were laminated with Panlite L 1250 in the sequence PC film/carbon fiber cloth/PC

film/aramid lace/PC film/aramid lace/PC film/**carbon fiber** cloth/PC film and compression-molded at 300° for 30 min to give a 0.75-mm fiber-reinforced PC sheet with fiber volume 50%, sp. gr. 1.36, flexural strength 60 kg/mm², and flexural modulus 4000 kg/mm², whereas a sheet manufactured similarly but without the aramid fiber laces had fiber volume 35%, sp. gr. 1.36, flexural strength 50 kg/mm², and flexural modulus 2000 kg/mm².

- IC ICM C08J005-04
ICS B29B011-16; B29C067-14; B32B005-02; B32B005-28
ICI B29K105-08, B29L007-00
CC 38-3 (Plastics Fabrication and Uses)
ST fiber reinforced **thermoplastic** laminate; **carbon fiber** composite laminate; heat resistant fiber composite laminate; aramid fiber composite laminate; polyarylate fiber composite laminate; PAN fiber composite laminate; PET fiber composite laminate; polybenzimidazole fiber composite laminate; polyethylene naphthalate fiber composite laminate; cellulosic fiber composite laminate; polyethylene fiber composite laminate; polypropylene fiber composite laminate; **polycarbonate** fiber composite laminate; polyamide fiber composite laminate; **nylon** fiber composite laminate; polyester fiber composite laminate; **ABS** fiber composite laminate; polyphenylene sulfide fiber composite laminate; compression molding fiber **thermoplastic** laminate
IT **Polycarbonates**, miscellaneous
RL: MSC (Miscellaneous)
(films, laminates with **carbon fiber** cloths and aramid fiber laces, with light weight and good mech. properties)
IT **Carbon fibers**, uses
RL: USES (Uses)
(laminates with aramid fiber laces and **polycarbonate** films, with light weight and good mech. properties)
IT **Polyesters**, miscellaneous
Polythiophenylenes
RL: MSC (Miscellaneous)
(laminates, **carbon fiber**- and heat-resistant fiber-reinforced, with light weight and good mech. properties)
IT **Acrylic fibers**, uses
Glass fibers, uses
Polyester fibers, uses
RL: USES (Uses)
(**thermoplastic** laminates reinforced by **carbon fibers** and, with light weight and good mech. properties)
IT **Polybenzimidazoles**
RL: USES (Uses)
(fiber, **thermoplastic** laminates reinforced by **carbon fibers** and, with light weight and good mech. properties)
IT **Polyamide fibers**, uses
RL: USES (Uses)
(isophthalic acid-m-phenylenediamine, laces, laminates with **carbon fiber** cloths and **polycarbonate** films, with light weight and good mech. properties)
IT **Synthetic fibers**, **polymeric**
RL: USES (Uses)
(polybenzimidazoles, **thermoplastic** laminates reinforced by **carbon fibers** and, with light weight and good mech. properties)
IT **7440-44-0**
RL: USES (Uses)

(carbon fibers, laminates with aramid fiber laces
and polycarbonate films, with light weight and good mech.
properties)

IT 24938-60-1, Conex 25035-33-0
RL: USES (Uses)
(fiber, laces, laminates with carbon fiber
cloths and polycarbonate, with light weight and good mech.
properties)

IT 24936-68-3, Panlite L 1250, uses 25037-45-0 25038-54-4, Nylon
6, uses
RL: USES (Uses)
(film, laminates with carbon fiber cloths and
aramid fiber laces, with light weight and good mech. properties)

IT 9002-86-2 9002-88-4 9003-07-0 9003-56-9 24968-12-5
RL: USES (Uses)
(laminates, carbon fiber- and heat-resistant
fiber-reinforced, with light weight and good mech. properties)

IT 25038-59-9, miscellaneous 26062-94-2 32131-17-2, miscellaneous
RL: MSC (Miscellaneous)
(laminates, carbon fiber- and heat-resistant
fiber-reinforced, with light weight and good mech. properties)

IT 7440-44-0
RL: USES (Uses)
(carbon fibers, laminates with aramid fiber laces
and polycarbonate films, with light weight and good mech.
properties)

IT 9003-56-9
RL: USES (Uses)
(laminates, carbon fiber- and heat-resistant
fiber-reinforced, with light weight and good mech. properties)

L155 ANSWER 15 OF 24 HCA COPYRIGHT 2004 ACS on STN

118:92384 Resin composition which dissipates static charge. Oku,
Mitsumasa (Matsushita Electric Industrial Co., Ltd., Japan). Eur. Pat.
Appl. EP 502483 A2 19920909, 29 pp. DESIGNATED STATES: R: BE,
DE, FR, GB, IT, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP
1992-103630 19920303. PRIORITY: JP 1991-37678 19910305; JP 1992-54388
19920204; JP 1992-56778 19920207.

AB In a resin composition containing a dispersed semiconductor filler, especially

ZnO

whiskers, a conductive path is formed by elec. contact between the filler
particles, having $\alpha = 2-150$, indicating the nonlinearity of the
current-voltage characteristic.

IC ICM C08K003-00

ICS C08K007-02

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 38

IT Ceramic materials and wares

Carbon fibers, uses

Metallic fibers

Metals, uses

RL: USES (Uses)

(as fillers in polymer compns. for dissipation of static charge)

IT Crystal whiskers

(conductive and semiconductive, as fillers in polymer compns. for
dissipation of static charge)

IT Polyamides, uses

Polyesters, uses

Polythiophenylenes

RL: USES (Uses)

(static-charge-dissipating compns. containing semiconductor fillers and)

IT 7440-44-0

RL: USES (Uses)

(carbon fibers, as fillers in polymer compns. for
dissipation of static charge)IT 57-13-6D, Urea, polymers 9002-85-1, Polyvinylidene chloride 9002-86-2,
Polyvinyl chloride 9003-08-1, Melamine resin 9003-17-2, Polybutadiene
9003-20-7, Polyvinyl acetate 9003-53-6, Polystyrene 9003-56-9,**ABS (polymer)** 9010-79-1 9011-14-7, Polymethyl
methacrylate 24968-12-5, Polybutylene terephthalate 25014-41-9,
Polyacrylonitrile 25038-59-9, uses 26062-94-2, Polybutylene
terephthalate

RL: USES (Uses)

(polymer compns. containing, for static charge dissipation)

L155 ANSWER 16 OF 24 HCA COPYRIGHT 2004 ACS on STN

117:222713 Wafer carrier/baskets. Tabuchi, Akira; Nakamura, Morihiko (Otsuka
Kagaku K. K., Japan). Jpn. Kokai Tokkyo Koho JP 04064246 A2
19920228 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION:
JP 1990-175351 19900704.AB The basket is fabricated using a composite comprising a
thermoplastic, conductive whiskers of potassium titanate, an
antioxidant (or a peroxide-decomposing agent) 10-1000ppm, and a HCl absorber
200-500ppm. The basket is highly antistatic and is suited for use in
ultraclean processings.

IC ICM H01L021-68

ICS G02F001-13

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related
Properties)

Section cross-reference(s): 38

ST wafer carrier conductive whisker embedded **thermoplastic**IT **Crystal whiskers**

Glass fibers, uses

RL: USES (Uses)

(plastic composites containing, wafer carrier/baskets from)

IT Ionomers

Polyamides, uses**Polycarbonates, uses**

Polyoxymethylenes, uses

Polythiophenylenes

RL: PRP (Properties)

(plastic/whisker composites containing, wafer carrier/baskets
from)

IT Containers

(baskets, from plastic/whisker composites, for wafer
carriers)

IT Polyimides, uses

Polyketones

Polysulfones, uses

RL: PRP (Properties)

(polyether-, plastic/whisker composites containing, wafer
carrier/baskets from)

IT Polyethers, uses

RL: PRP (Properties)

(polyimide-, plastic/whisker composites containing, wafer
carrier/baskets from)

- IT Polyethers, uses
RL: PRP (Properties)
(polyketone-, **plastic**/whisker composites containing, wafer carrier/baskets from)
- IT Polyethers, uses
RL: PRP (Properties)
(polysulfone-, **plastic**/whisker composites containing, wafer carrier/baskets from)
- IT 74-85-1D, Ethene, fluoroalkoxy derivs., **polymers** 9002-88-4,
Ethene, **homopolymer** 9003-07-0, 1-Propene, **homopolymer**
9003-53-6 **9003-56-9**, Acrylonitrile-1,3-butadiene-styrene
copolymer 144246-33-3, HTA 7600G
RL: USES (Uses)
(**plastic**/whisker composites containing, wafer carrier/baskets from)
- IT 25038-54-4, **Nylon** 6, properties 25135-51-7 25212-74-2,
Poly(thio-1,4-phenylene) 25667-42-9, Poly(oxy-1,4-phenylenesulfonyl-1,4-phenylene) PES 4100G 27380-27-4 31694-16-3, Poly(oxy-p-phenyleneoxy-p-phenylenecarbonyl-p-phenylene) 32131-17-2, **Nylon** 66,
properties 61128-24-3 95078-80-1, Radel A 400
RL: PRP (Properties)
(**plastic**/whisker composites containing, wafer carrier/baskets from)
- IT **11121-16-7** 12033-89-5, Silicon nitride (Si₃N₄), properties
121630-72-6, Potassium titanium oxide ((potassium,Ti)O) 138364-65-5,
Magnesium hydroxide sulfate (Mg(OH)₂-SO₄)₀₋₁
RL: USES (Uses)
(whisker crystals, **plastic** composites containing, wafer carrier/baskets from)
- IT 1309-48-4, Magnesium oxide, properties
RL: PRP (Properties)
(whisker crystals, **plastic** composites containing, wafer carrier/baskets from)
- IT **9003-56-9**, Acrylonitrile-1,3-butadiene-styrene **copolymer**
RL: USES (Uses)
(**plastic**/whisker composites containing, wafer carrier/baskets from)
- IT **11121-16-7**
RL: USES (Uses)
(whisker crystals, **plastic** composites containing, wafer carrier/baskets from)

L155 ANSWER 17 OF 24 HCA COPYRIGHT 2004 ACS on STN
113:79785 Polyamide- and layered silicate-containing plastics for impact-resistant rigid moldings. Deguchi, Ryuichi; Nishio, Takeyoshi; Okada, Akane (Ube Industries, Ltd., Japan; Toyota Motor Corp.; Toyota Central Research and Development Laboratories, Inc.). Eur. Pat. Appl. EP 352042 A1 **19900124**, 19 pp. DESIGNATED STATES: R: DE, FR, GB.
(English). CODEN: EPXXDW. APPLICATION: EP 1989-307198 19890714.
PRIORITY: JP 1988-179095 19880720; JP 1988-318519 19881219.

AB The title compns. contain a polyamide and a layered silicate as well as a polyoxyphenylene and/or an impact strength-improving material, have good moldability, and give moldings having good heat and impact resistance and rigidity. A composition containing **nylon 6** (mol. weight 15,000) 100, 12-aminododecanoic acid-treated montmorillonite 0.9, and 95:2:1:2 (mol) ethylene-methacrylic acid-Me methacrylate-Zn methacrylate copolymer 54 parts gave injection moldings having tensile strength 600 kg/cm², elongation >200%, flexural modulus 17,000 kg/cm², notched Izod impact

strength at -30° 17 kg-cm/cm, and heat-distortion temperature 172°.

IC ICM C08L077-00
ICS C08K003-34; C08L071-12

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38

IT **Polyamides, uses and miscellaneous**
RL: USES (Uses)
(molded blends containing layered silicates and, impact-resistant, rigid)

IT 25038-54-4, **Nylon 6**, uses and miscellaneous
RL: USES (Uses)
(moldings containing layered silicate and, impact-resistant, rigid)

IT 108-31-6D, 2,5-Furandione, reaction products with ethylene-propene copolymer 110-16-7D, 2-Butenedioic acid (Z)-, reaction products with hydrogenated butadiene-styrene block copolymer 9003-07-0,
Polypropylene 9003-56-9, ABS polymer
9010-79-1D, Ethylene-propene copolymer, maleated 24938-67-8,
Poly[oxy(2,6-dimethyl-1,4-phenylene)] 24968-12-5 25038-59-9,
Poly(ethylene terephthalate), uses and miscellaneous 25135-49-3,
Poly[oxy(2-methyl-1,4-phenylene)] 25805-39-4, Poly[oxy(2-methyl-6-phenyl-1,4-phenylene)] 26023-27-8, Poly[oxy(2,6-dibromo-1,4-phenylene)] 26062-94-2 26498-58-8, Poly[oxy(2-chloro-6-methyl-1,4-phenylene)] 26635-16-5, Poly[oxy(2-ethyl-6-methyl-1,4-phenylene)] 26635-17-6,
Poly[oxy(2,6-diethyl-1,4-phenylene)] 31726-25-7, Poly[oxy(2,3,6-trimethyl-1,4-phenylene)] 31985-12-3 32130-76-0, Poly[oxy(2-chloro-1,4-phenylene)] 35916-62-2, Poly[oxy(2-chloro-6-ethyl-1,4-phenylene)] 38548-66-2, Poly[oxy(2,6-dipropyl-1,4-phenylene)] 106107-54-4D,
Butadiene-styrene block copolymer, hydrogenated, maleated 128676-26-6
128676-27-7 128676-28-8 128747-27-3
RL: USES (Uses)
(polyamide blends, layered silicate-containing, impact-resistant, rigid)

IT 110-16-7D, 2-Butenedioic acid (Z)-, reaction products with hydrogenated butadiene-styrene block copolymer 9003-56-9,
ABS polymer
RL: USES (Uses)
(polyamide blends, layered silicate-containing, impact-resistant, rigid)

L155 ANSWER 18 OF 24 HCA COPYRIGHT 2004 ACS on STN
111:196054 Void control in **thermoplastics** containing silicone interpenetrating **polymer** networks. Crosby, Jane M.; Hutchins, Mary Gail K.; Ward, Susan K. (ICI Americas, Inc., USA). Eur. Pat. Appl. EP 308835 A2 19890329, 7 pp. DESIGNATED STATES: R: DE, FR, GB, IT, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1988-115281 19880917. PRIORITY: US 1987-99193 19870921.

AB Compns. with homogeneous, evenly distributed voids and good fracture resistance are prepared by adding vulcanizable siloxanes to **thermoplastics** and melt processing and vulcanizing to form an interpenetrating network. **Nylon 66** containing 30% glass fibers and 5% siloxane (20 parts vinyldimethylsiloxy-terminated di-Me siloxane and 20 parts trimethylsiloxy-terminated di-Me, Me hydrogen siloxane) was extruded to a disk that had number of voids 45 and 56 and void length 68 ± 18 and 91 ± 27 µm for the surface and interior, resp., vs. 38, 110, 162 ± 33 and 204 ± 53, resp., without siloxane.

IC ICM C08L101-00
ICI C08L101-00, C08L083-04
CC 37-6 (Plastics Manufacture and Processing)
ST **thermoplastic** vulcanizable siloxane interpenetrating networks; polyamide siloxane blend void control

IT **Carbon fibers**, uses and miscellaneous
Glass fibers, uses and miscellaneous
Metallic fibers
RL: USES (Uses)
 (composites with **thermoplastic**-vulcanizable siloxane
 interpenetrating networks, with homogeneous evenly distributed voids)

IT **Fireproofing agents**
Lubricants
 (**thermoplastic**-vulcanizable siloxane interpenetrating
 networks containing, with homogeneous evenly distributed voids)

IT **Fluoropolymers**
 Polycarbonates, uses and miscellaneous
Polyesters, uses and miscellaneous
Polyimides, uses and miscellaneous
Polyoxymethylenes, uses and miscellaneous
Polysulfones, uses and miscellaneous
Polythiophenylenes
RL: USES (Uses)
 (vulcanizable siloxane interpenetrating networks, with homogeneous,
 evenly distributed voids)

IT **Polyamide fibers**, uses and miscellaneous
RL: USES (Uses)
 (aramid, composites with **thermoplastic**-vulcanizable siloxane
 interpenetrating networks, with homogeneous evenly distributed voids)

IT **Glass, oxide**
RL: USES (Uses)
 (beads, **thermoplastic**-vulcanizable siloxane interpenetrating
 networks containing, with homogeneous evenly distributed voids)

IT **Synthetic fibers**
RL: USES (Uses)
 (boron, composites with **thermoplastic**-vulcanizable siloxane
 interpenetrating networks, with homogeneous evenly distributed voids)

IT **Synthetic fibers**
RL: USES (Uses)
 (ceramic, composites with **thermoplastic**-vulcanizable siloxane
 interpenetrating networks, with homogeneous evenly distributed voids)

IT **Siloxanes and Silicones, compounds**
RL: USES (Uses)
 (di-Me, Me hydrogen, reaction products, with vinyl-terminated
 siloxanes, interpenetrating networks with **thermoplastics**,
 with homogeneous, evenly distributed voids)

IT **Siloxanes and Silicones, compounds**
RL: USES (Uses)
 (di-Me, vinyl group-terminated, reaction products, with hydrogen
 siloxanes, interpenetrating networks with **thermoplastics**,
 with homogeneous, evenly distributed voids)

IT **Ceramic materials and wares**
RL: USES (Uses)
 (fibers, composites with **thermoplastic**-vulcanizable siloxane
 interpenetrating networks, with homogeneous evenly distributed voids)

IT **Alkenes, polymers**
RL: USES (Uses)
 (**polymers**, vulcanizable siloxane interpenetrating networks,
 with homogeneous, evenly distributed voids)

IT **7440-44-0**
RL: USES (Uses)
 (**carbon fibers**, composites with
 thermoplastic-vulcanizable siloxane interpenetrating networks,

with homogeneous evenly distributed voids)

IT 9002-86-2, Poly(vinylchloride) 9003-53-6, Polystyrene **9003-54-7**, Acrylonitrile-styrene **copolymer 9003-56-9**, Acrylonitrile-butadiene-styrene **copolymer 24936-68-3**, preparation 32131-17-2, **Nylon 66**, uses and miscellaneous
RL: USES (Uses)
(vulcanizable siloxane interpenetrating networks, with homogeneous, evenly distributed voids)

IT **7440-44-0**
RL: USES (Uses)
(**carbon fibers**, composites with **thermoplastic**-vulcanizable siloxane interpenetrating networks, with homogeneous evenly distributed voids)

IT **9003-54-7**, Acrylonitrile-styrene **copolymer**
9003-56-9, Acrylonitrile-butadiene-styrene **copolymer**
RL: USES (Uses)
(vulcanizable siloxane interpenetrating networks, with homogeneous, evenly distributed voids)

L155 ANSWER 19 OF 24 HCA COPYRIGHT 2004 ACS on STN
111:79325 Enhanced melt extrusion of **thermoplastics** containing silicone interpenetrating **polymer** networks. Ward, Susan K.; O'Brien, Gregory S. (ICI Americas, Inc., USA). Eur. Pat. Appl. EP 308836 A2 **19890329**, 7 pp. DESIGNATED STATES: R: DE, FR, GB, IT, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1988-115282 19880917. PRIORITY: US 1987-99185 19870921.

AB Compns. with good melt integrity and strength which can be melt-drawn to articles with smooth surfaces at high tolerances (e.g. tubing, wire, coatings, films) contain **thermoplastics** with unfilled flexural modulus >90,000 psi and vulcanizable siloxanes. A composition containing poly(butylene terephthalate), 15% PTFE, and 2% interpenetrating siloxanes (prepared from 20 parts vinyldimethylsiloxy-terminated di-Me, di-Ph siloxane and 1 part trimethylsiloxy-terminated di-Me, Me hydrogen siloxane) had melt index (250°, 5000 g) 31 g/min and gave tubing with surface roughness 50 µm-in/in, vs. 59 and 130, resp., without the siloxane.

IC ICM C08L101-00
ICS B29C047-00

ICI C08L101-00, C08L083-04

CC 37-6 (Plastics Manufacture and Processing)

ST **thermoplastic** vulcanizable siloxane interpenetrating network; polybutylene terephthalate interpenetrating network

IT **Carbon fibers**, uses and miscellaneous
Glass fibers, uses and miscellaneous
Metallic fibers
RL: USES (Uses)
(composites with **thermoplastic**-vulcanizable siloxane interpenetrating networks, with good surface smoothness)

IT Fluoropolymers
Polyamides, uses and miscellaneous
Polyesters, uses and miscellaneous
Polyoxymethylene, uses and miscellaneous
Polysulfones, uses and miscellaneous
Polythiophenylenes
RL: USES (Uses)
(interpenetrating networks with vulcanized siloxanes, with good surface smoothness)

IT Rubber, silicone, uses and miscellaneous
RL: USES (Uses)

(thermoplastic interpenetrating networks with vulcanized,
with good surface smoothness)

IT Fireproofing agents
Lubricants
(thermoplastic-vulcanizable siloxane interpenetrating
networks containing, with good surface smoothness)

IT Coating materials
Pipes and Tubes
Wire
(thermoplastic-vulcanizable siloxane interpenetrating
networks for, with good surface smoothness)

IT Polyamide fibers, uses and miscellaneous
RL: USES (Uses)
(aramid, composites with thermoplastic-vulcanizable siloxane
interpenetrating networks, with good surface smoothness)

IT Glass, oxide
RL: USES (Uses)
(beads, composites with thermoplastic-vulcanizable siloxane
interpenetrating networks, with good surface smoothness)

IT Synthetic fibers
RL: USES (Uses)
(boron, composites with thermoplastic-vulcanizable siloxane
interpenetrating networks, with good surface smoothness)

IT Synthetic fibers
RL: USES (Uses)
(ceramic, composites with thermoplastic-vulcanizable siloxane
interpenetrating networks, with good surface smoothness)

IT Siloxanes and Silicones, compounds
RL: USES (Uses)
(di-Me, Me hydrogen, reaction products, with vinyl-terminated
siloxanes, interpenetrating networks with thermoplastics,
with good surface smoothness)

IT Siloxanes and Silicones, compounds
RL: USES (Uses)
(di-Me, di-Ph, [(ethenyldimethylsilyl)oxy]-terminated, reaction
products, with hydrogen siloxanes, interpenetrating networks with
thermoplastics, with good surface smoothness)

IT Siloxanes and Silicones, compounds
RL: USES (Uses)
(di-Me, vinyl group-terminated, reaction products, with hydrogen
siloxanes, interpenetrating networks with thermoplastics,
with good surface smoothness)

IT Ceramic materials and wares
RL: USES (Uses)
(fibers, composites with thermoplastic-vulcanizable siloxane
interpenetrating networks, with good surface smoothness)

IT Siloxanes and Silicones, uses and miscellaneous
RL: USES (Uses)
(polycarbonate-, interpenetrating networks with vulcanized,
with good surface smoothness)

IT Polyamides, uses and miscellaneous
Polyethers, uses and miscellaneous
RL: USES (Uses)
(polyimide-, interpenetrating networks with vulcanized siloxanes, with
good surface smoothness)

IT Alkenes, polymers
RL: USES (Uses)
(polymers, interpenetrating networks with vulcanized

siloxanes, with good surface smoothness)

IT **Polycarbonates**, uses and miscellaneous
 RL: USES (Uses)
 (siloxane-, interpenetrating networks with vulcanized, with good surface smoothness)

IT **7440-44-0**
 RL: USES (Uses)
 (carbon fibers, composites with thermoplastic-vulcanizable siloxane interpenetrating networks, with good surface smoothness)

IT 9002-86-2, Poly(vinylchloride) 9003-53-6, Polystyrene **9003-54-7**, Acrylonitrile-styrene **copolymer 9003-56-9**, Acrylonitrile-butadiene-styrene **copolymer 24968-12-5** 26062-94-2, Butanediol-terephthalic acid **copolymer 27082-00-4**, Celconu-10 32131-17-2, **Nylon 66**, uses and miscellaneous
 RL: USES (Uses)
 (interpenetrating networks with vulcanized siloxanes, with good surface smoothness)

IT 9002-84-0
 RL: USES (Uses)
 (lubricants, for thermoplastic interpenetrating networks with vulcanizable siloxanes, with good surface appearance)

IT **7440-44-0**
 RL: USES (Uses)
 (carbon fibers, composites with thermoplastic-vulcanizable siloxane interpenetrating networks, with good surface smoothness)

IT **9003-54-7**, Acrylonitrile-styrene **copolymer 9003-56-9**, Acrylonitrile-butadiene-styrene **copolymer**
 RL: USES (Uses)
 (interpenetrating networks with vulcanized siloxanes, with good surface smoothness)

L155 ANSWER 20 OF 24 HCA COPYRIGHT 2004 ACS on STN

109:130219 Heat-resistant **thermoplastic resin compositions**. Hashimoto, Kenji; Takahashi, Shuji; Kondo, Masanori; Ogura, Kiyoshi (Sumitomo Naugatuck Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62288655 A2 **19871215** Showa, 24 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-132189 19860606.

AB Compns. with good discoloration resistance and useful in preparing elec., electronic, automobile parts, etc. comprise **resins** containing imide groups (prepared from maleimides or glutarimides 1-70, aromatic vinyls, unsatd. nitriles, unsatd. carboxylic acids or esters, and/or olefins 30-99, and copolymerizable monomers 0-30 parts), **thermoplastic resins** or elastomers, coloring materials, organic stabilizers, lubricants, and additives (e.g., fillers, fireproofing agents, blowing agents, and/or antistatic agents). Thus, a mixture of 16:31:53 acrylonitrile-N-phenylmaleimide-styrene **copolymer** 70, 11:60:29 **ABS polymer** 30, C. I. Pigment Red 101 (I) 0.5, and additives 0.9 part was injection molded at 290° to give a sheet having color difference 0.56 NMB with and without staying 5 min in the machine (CIE 1976), vs. 40.25 for a sheet containing C.I. Pigment red 178 instead of I.

IC ICM C08L101-00

ICS C08K005-00; C08L079-00

CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 39

ST heat resistance colored polymaleimide; acrylonitrile phenylmaleimide

styrene **copolymer** coloring; iron oxide colorant polymaleimide;
ABS polymer blend polymaleimide

IT Heat-resistant materials
(blends of polyimides and **thermoplastic resins** as)

IT Heat stabilizers
(blends of polyimides and **thermoplastic resins** containing)

IT Lubricants
(blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT Fluoropolymers
Polyamides, uses and miscellaneous
Polycarbonates, uses and miscellaneous
Polyesters, uses and miscellaneous
Polyoxymethylenes, uses and miscellaneous
Polyoxyphenylenes
Polysulfones, uses and miscellaneous
Polythiophenylenes
Rubber, silicone, uses and miscellaneous
RL: USES (Uses)
(blends with polyimides and coloring materials, heat-resistant)

IT Polyimides, uses and miscellaneous
RL: USES (Uses)
(blends with **thermoplastic resins** and coloring materials, heat-resistant)

IT Siloxanes and Silicones, uses and miscellaneous
RL: USES (Uses)
(lubricants, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT Carbon fibers, uses and miscellaneous
Glass fibers, uses and miscellaneous
RL: USES (Uses)
(reinforcers, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT Rubber, urethane, uses and miscellaneous
RL: USES (Uses)
(**adipic** acid-butanediol-diphenylmethane diisocyanate, blends with polyimides and coloring materials, heat-resistant)

IT **Polyamides, uses and miscellaneous**
Polyethers, uses and miscellaneous
RL: USES (Uses)
(polyimide-, blends with polyimides and coloring materials, heat-resistant)

IT Metallic fibers
RL: USES (Uses)
(stainless steel, reinforcers, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT Plastics, molded
RL: USES (Uses)
(thermo-, blends with polyimides and coloring materials, heat-resistant)

IT 25038-54-4, Polycaprolactam, uses and miscellaneous
RL: USES (Uses)
(blends of Al1030SR with polyimides and coloring materials, heat-resistant)

IT 82-38-2 147-14-8 980-26-7 1304-85-4, Bismuth hydroxide nitrate oxide (Bi₅(OH)₉(NO₃)₄O) 1309-37-1, C.I. Pigment Red 101, uses and miscellaneous 1309-64-4, Antimony trioxide, uses and miscellaneous

1332-25-8, C.I. Pigment Red 102 1345-27-3, C.I. Pigment Brown 7
6408-72-6 6829-22-7, C.I. Solvent Red 179 6925-69-5, C.I. Solvent
Orange 60 7727-43-7 7782-42-5, Graphite, uses and miscellaneous
8003-22-3, C.I. Solvent Yellow 33 8007-18-9, C.I. Pigment Yellow 53
8011-87-8, C.I. Pigment Green 19 12656-57-4, C.I. Pigment Orange 20
13463-67-7, Titanium oxide (TiO₂), uses and miscellaneous 14302-13-7
52357-70-7, C.I. Pigment Brown 6 58339-34-7, C.I. Pigment Red 108
64294-89-9, C.I. Pigment Brown 11 65212-77-3, C.I. Pigment Yellow 183
68186-90-3, C.I. Pigment Brown 24 68859-25-6, C.I. Pigment Yellow 37
91315-44-5, C.I. Pigment White 4 109414-04-2, C.I. Pigment Brown 29
114013-40-0, C.I. Pigment Green 14 114013-41-1, C.I. Solvent Red 151

RL: USES (Uses)

(blends of polyimides and **thermoplastic resins**
containing, heat-resistant)

IT 100-42-5D, Styrene, **polymer** with acrylonitrile and EPDM rubber
107-13-1D, 2-Propenenitrile, **polymer** with styrene and EPDM
rubber 9002-84-0 9003-18-3, Acrylonitrile-butadiene **copolymer**
9003-54-7, Acrylonitrile-styrene **copolymer**
9003-56-9, ABS **polymer** 9010-77-9, Acrylic
acid-ethylene **copolymer** 9011-52-3, Hexamethylenediamine-
sebacic acid **copolymer** 9016-75-5, Poly(thiophylene)
24936-68-3, uses and miscellaneous 24938-67-8, Poly(2,6-
dimethylphenylene-1,4-ether) 24968-12-5, C7000 (Polyester) 25034-86-0,
Methyl methacrylate-styrene **copolymer** 25035-81-8, Methacrylic
acid-methyl methacrylate-styrene **copolymer** 25036-53-7
25037-45-0, Bisphenol A-carbonic acid **copolymer** 25038-71-5,
Neoflon ETFE EP-520 25067-11-2 25067-34-9, Ethylene-vinyl alcohol
copolymer 25103-74-6, Ethylene-methyl acrylate **copolymer**
25213-88-1, Acrylonitrile-methyl methacrylate-styrene
copolymer 25747-74-4, Acrylonitrile- α -methylstyrene
copolymer 26062-94-2, Butylene glycol-terephthalic acid
copolymer 26099-71-8, Ekonol E101 26590-50-1, U
Polymer U-100 33961-16-9, Methacrylonitrile-styrene
copolymer 50327-22-5 50327-77-0 51109-15-0, Butyl
acrylate-ethylene-glycidyl methacrylate **copolymer** 63322-78-1,
Ethylene-methacrylic acid-zinc methacrylate **copolymer**
75835-87-9, Acrylonitrile-p-methylstyrene **copolymer**
87806-04-0, Iupital F20-01 106177-14-4, Ethylene-**maleic**
anhydride-propylene graft **copolymer** 106255-03-2, Iupiace AH60
106343-08-2, Ethylene-**maleic** anhydride graft **copolymer**
106974-54-3, Butadiene-styrene graft **copolymer**
108554-70-7, Acrylonitrile-butyl acrylate-styrene graft
copolymer 114749-27-8

RL: USES (Uses)

(blends with polyimides and coloring materials, heat-resistant)

IT 26316-43-8, N-Phenylmaleimide-styrene **copolymer** 30523-73-0,
Ethylene-N-phenylmaleimide **copolymer** 31621-07-5,
Acrylonitrile-N-phenylmaleimide-styrene **copolymer**
37604-30-1, Acrylonitrile-N-cyclohexylmaleimide-styrene
copolymer 38807-39-5, N-o-Chlorophenylmaleimide-methyl
methacrylate **copolymer** 81598-70-1, Methyl methacrylate-N-
phenylmaleimide-styrene **copolymer** 84741-24-2,
Acrylonitrile- α -methylstyrene-N-phenylmaleimide **copolymer**
88077-74-1, Acrylonitrile-butadiene-N-phenylmaleimide-styrene
copolymer 106126-74-3, Acrylonitrile-p-methylstyrene-N-
phenylmaleimide **copolymer** 113151-28-3, Methacrylonitrile-N-
phenylmaleimide-styrene **copolymer** 113151-29-4,
Methacrylonitrile- α -methylstyrene-N-phenylmaleimide

copolymer 114730-84-6 114730-85-7 114730-86-8
RL: USES (Uses)
(blends with **thermoplastic resins** and coloring materials, heat-resistant)

IT **7440-44-0**
RL: USES (Uses)
(**carbon fibers**, reinforcers, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT 12597-68-1, Stainless steel, uses and miscellaneous
RL: USES (Uses)
(fibers, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT 14807-96-6, Talc, uses and miscellaneous
RL: USES (Uses)
(filler, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT 115-86-6, Triphenyl phosphate
RL: USES (Uses)
(fillers, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT 123-28-4, Dilauryl 3,3'-thiodipropionate 1843-05-6, 2-Hydroxy-4-octoxybenzophenone 2082-79-3 2440-22-4 4221-80-1 6683-19-8
13103-52-1, Laurylstearyl 3,3'-thiodipropionate 26248-38-4, Epoxybutyl stearate 26523-78-4, Trisnonylphenyl phosphite 26741-53-7
29598-76-3, Pentaerythritol tetrakis(β-lauryl thiopropionate) 32687-78-8 36443-68-2 52829-07-9 61167-58-6 63843-89-0
RL: MOA (Modifier or additive use); USES (Uses)
(heat stabilizers, blends of polyimides and **thermoplastic resins** containing)

IT 110-30-5 111-61-5, Ethyl stearate 112-53-8, Lauryl alcohol 557-04-0, Magnesium stearate 557-05-1, Zinc stearate 1592-23-0, Calcium stearate 6865-35-6, Barium stearate 9002-88-4, Polyethylene
RL: USES (Uses)
(lubricants, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

IT **25038-54-4**, Polycaprolactam, uses and miscellaneous
RL: USES (Uses)
(blends of Al1030SR with polyimides and coloring materials, heat-resistant)

IT **9003-54-7**, Acrylonitrile-styrene **copolymer**
9003-56-9, ABS polymer **25213-88-1**,
Acrylonitrile-methyl methacrylate-styrene **copolymer**
108554-70-7, Acrylonitrile-butyl acrylate-styrene graft **copolymer**
RL: USES (Uses)
(blends with polyimides and coloring materials, heat-resistant)

IT **31621-07-5**, Acrylonitrile-N-phenylmaleimide-styrene **copolymer** **37604-30-1**, Acrylonitrile-N-cyclohexylmaleimide-styrene **copolymer** **88077-74-1**, Acrylonitrile-butadiene-N-phenylmaleimide-styrene **copolymer**
RL: USES (Uses)
(blends with **thermoplastic resins** and coloring materials, heat-resistant)

IT **7440-44-0**
RL: USES (Uses)
(**carbon fibers**, reinforcers, blends of polyimides and **thermoplastic resins** containing, heat-resistant)

- L155 ANSWER 21 OF 24 HCA COPYRIGHT 2004 ACS on STN
 106:19660 Thermoplastic moldings with metallic luster. Inoue, Seiji; Suzuki, Naoyuki (Mitsubishi Rayon Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61176635 A2 **19860808** Showa, 5 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 1985-17526 19850131.
- AB Thermoplastic moldings having durable surfaces with metallic luster are prepared by sandblasting moldings of thermoplastic resins 20-90, fiber fillers 5-50, and metal powders 5-75%, then applying a transparent coating. A polycarbonate molding containing 15% C fibers (diameter 7 μ , length 6 mm) and 20% powdered Cu (250 mesh) was sandblasted, coated with a transparent polyurethane film 20 μ thick, and baked at 90° for 1 h to give a product with flexural strength 1891 kg/cm² and notched Izod impact strength 7.2 kg-cm/cm, with good metallic luster.
- IC ICM C08J007-04
- ICA B32B027-20
- CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42
- ST **carbon fiber** thermoplastic molding; copper powder thermoplastic molding; sporting good metallic thermoplastic molding; polyurethane coating metallic thermoplastic molding; sandblasting thermoplastic molding metallic luster; metal contg reinforced thermoplastic molding; cosmetic container metallic thermoplastic molding
- IT **Polyamides, uses and miscellaneous**
 Polycarbonates, uses and miscellaneous
 RL: USES (Uses)
 (moldings, containing fibers and powdered metals, clear-coated, with durable metallic luster)
- IT **Crystal whiskers**
Carbon fibers, uses and miscellaneous
 Glass fibers, uses and miscellaneous
 Metallic fibers
 RL: USES (Uses)
 (thermoplastic moldings containing powdered metals and, clear-coated, with durable metallic luster)
- IT 7440-44-0
 RL: USES (Uses)
 (**carbon fibers**, thermoplastic moldings containing powdered metals and, clear-coated, with durable metallic luster)
- IT 9003-56-9, **ABS polymer** 24968-12-5, Poly(butylene terephthalate) 25038-59-9, uses and miscellaneous 26062-94-2, Poly(butylene terephthalate) 32131-17-2, Nylon 66, uses and miscellaneous
 RL: USES (Uses)
 (moldings, containing fibers and powdered metals, clear-coated, with durable metallic luster)
- L155 ANSWER 22 OF 24 HCA COPYRIGHT 2004 ACS on STN
 105:79892 Neoalkoxy organotitanates and organozirconates useful as coupling and **polymer** processing agents. Sugerman, Gerald; Monte, Salvatore J. (Kenrich Petrochemicals, Inc., USA). Eur. Pat. Appl. EP 164227 A2 **19851211**, 56 pp. DESIGNATED STATES: R: BE, CH, DE, FR, GB, IT, LI, LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1985-303352 19850513. PRIORITY: US 1984-609727 19840514; US 1985-725437 19850422.
- AB A neoalkoxy compound RCR₁R₂CH₂OMAaBbCc (M = Ti or Zr; each R, R₁, and R₂ = C₁₋₂₀ hydrocarbyl, optionally halo- or ether-substituted, and R₂ may also be an oxy or ether-substituted oxy derivative; each A, B, and C = monovalent aryloxy, thioaryloxy, diester phosphate or pyrophosphate, oxyalkylamino,

sulfonyl, or carboxyl; a + b + c = 3) has good thermal and solvolytic stability, is useful for compounding with **polymers** at high temps. (>200°), and is also useful in peroxide-cured or air-cured **polymerization** systems for coupling fillers to **polymer** and, in some cases, accelerating the **polymerization**. Thus, 1 mol TiCl₄ was added to a xylene solution of 1 mol Me₃CCH₂OH and 3 mol HOP(O)(OC₈H₁₇)₂ during 2 h at 45-60° in N and kept for an addnl. 2 h. The mixture was heated in vacuo to evaporate the solvent, giving Me₃CCH₂OTi[OP(O)(OC₈H₁₇)₂]₃ (I) (87% yield). The compound had solvolysis resistance in BuOH (time required for disappearance of 50% solute at 25°) 48 h, vs. 0.1 h for Me₂CHOTi[OP(O)(OC₈H₁₇)₂]₃ (II). A composition comprising **ABS resin** 59.8, talc 40.0, and 65:35 I-silica powder mixture 0.2% was injection molded at 230° to give a molding having tensile strength 42 MPa, elongation 35%, flexural strength 78 MPa, flexural modulus 2.4 GPa, and notched Izod impact strength 0.4 kJ/m, vs. 37, 28, 70, 2.2, and 0.3, resp., for a composition prepared with II instead of I.

- IC ICM C07F007-00
ICS C07F009-09; C08F008-42; C08G085-00; C08K005-06; C08K005-52;
C08K005-17; C08K005-41; C08K005-09; C08K005-05; C08K009-04
- CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 23, 29
- ST thermal stability titanate zirconate; solvolysis resistance titanate zirconate; titanate prepn stability coupler; zirconate prepn stability coupler; coupling agent titanate zirconate; **ABS** coupler titanate zirconate; neoalkyl titanate zirconate coupler; filler coupling agent **polymer**; phosphate titanate zirconate coupler
- IT Carbon black, uses and miscellaneous
Carbon fibers
Clays, uses and miscellaneous
Kaolin, uses and miscellaneous
Mica-group minerals, uses and miscellaneous
RL: USES (Uses)
(fillers, for **polymers**, coupling agents for)
- IT Bending strength
Electric conductivity and conduction
Expansion, Dilation, and Elongation
Impact strength
Tensile strength
(of **polymers**, titanates and zirconates for improved)
- IT Titanates
Zirconates
RL: PREP (Preparation)
(preparation and addition to **polymers** as coupling and processing agents)
- IT Phenolic **resins**, uses and miscellaneous
Polycarbonates
Polyesters, uses and miscellaneous
Polyoxymethylenes, uses and miscellaneous
Polyoxyphenylenes
Urethane **polymers**, uses and miscellaneous
RL: USES (Uses)
(titanates and zirconates containing neoalkyl groups as coupling and processing agents in)
- IT Coupling agents
Crosslinking catalysts
Fireproofing agents
Heat stabilizers

Polymerization catalysts
 (titanates and zirconates, preparation and use in **polymer** compns.)

IT Waterproofing
 (agents, titanates and zirconates, preparation and use in **polymer** compns.)

IT 471-34-1, uses and miscellaneous 14807-96-6, uses and miscellaneous
 RL: USES (Uses)
 (fillers, for **polymers**, coupling agents for)

IT 103171-76-2P 103171-84-2P 103194-10-1P 103245-60-9P 103245-61-0P
 103334-85-6P 103352-36-9P 103372-06-1P 103373-95-1P 103406-71-9P
 103406-72-0P 103406-73-1P 103406-74-2P 103432-53-7P 103432-54-8P
 103455-06-7P 103455-07-8P 103455-10-3P 103475-10-1P 103475-12-3P
 103538-14-3P 103850-22-2P 107525-86-0P 107541-22-0P 111083-78-4P
 RL: PREP (Preparation)
 (preparation of heat- and solvolysis-resistant, as coupling and
polymer processing agents)

IT 131-17-9D, **polymers** 9002-86-2D, chlorinated 9003-07-0
 9003-53-6 **9003-56-9** 9004-57-3 24968-12-5 **25038-54-4**
 , uses and miscellaneous 25038-59-9, uses and miscellaneous 26062-94-2
 31694-16-3 39316-43-3 64885-88-7 72146-92-0 103333-65-9
 103333-80-8 103333-81-9 103333-82-0 103333-84-2 103333-95-5
 103334-02-7 103334-26-5 103334-27-6 103334-28-7 103334-33-4
 103334-34-5 103334-40-3 103334-41-4 103812-95-9 103812-96-0
 103812-97-1
 RL: USES (Uses)
 (titanates and zirconates containing neoalkyl groups as coupling and
 processing agents in)

IT **9003-56-9 25038-54-4**, uses and miscellaneous
 RL: USES (Uses)
 (titanates and zirconates containing neoalkyl groups as coupling and
 processing agents in)

L155 ANSWER 23 OF 24 HCA COPYRIGHT 2004 ACS on STN

90:72735 Properties of Itamide S - nylon 6

reinforced with glass fiber with high glass content. Szepke-Wrobel,
 Alicja (Inst. Chem. Przem., Warsaw, Pol.). Polimery (Warsaw, Poland),
 23(11), 409-12 (Polish) 1978. CODEN: POLIA4. ISSN: 0032-2725.

AB Filling Tornamid T27 (I) with 60% cut glass fibers and glass beads gives
 Itamide S (II) [25038-54-4] with improved appearance and mech.
 properties. The filling does not change the melt viscosity at shearing
 rate 10/s. The presence of glass beads has no effect on the melt index of
 II, but glass fibers decrease it. At room temperature in humid air the
 elasticity modulus (E) of II is 6 times that of I. Moisture decreases the
 E of I less than that of II; the E of II containing 0.85% water is 12 times
 that of dry I.

CC 36-5 (Plastics Manufacture and Processing)

L155 ANSWER 24 OF 24 HCA COPYRIGHT 2004 ACS on STN

87:6950 Fillers containing zinc oxide. Leutner, Bernd; Schlimper, Hans
 Ulrich; Wurmb, Rold; Teysohn, Rainer (BASF A.-G., Fed. Rep. Ger.). Ger.
 Offen. DE 2544218 **19770421**, 7 pp. (German). CODEN: GWXXBX.

APPLICATION: DE 1975-2544218 19751003.

AB ZnO-containing fillers which do not impair the phys. properties of polyamides
 when used (as a synergistic additive) with Diels-Alder adduct flame
 retardants are manufactured by simultaneously adding a Zn salt solution and a
 solution of a base to an aqueous suspension of an inorg. carrier to maintain a
 pH of 10-12. Thus, 8g NaOH was added to a suspension of 100g CaCO₃ in 1L H₂O

and the mixture was heated to 50°. Then 455cm³ 2.42M Zn(NO₃)₂ was added (at 0.6 L/h) while the pH at 11-11.5. An addnl. 50cm³ Zn(NO₃)₂ was added to bring the pH to 10 and the solids were washed and dried to give a product (A) containing CaCO₃ 50.0 ± 2.0, ZnO 50.0 ± 2.0, and nitrate 0.1%. Polycaprolactam [25038-54-4] having K-value 72 and containing 2:1 hexachlorocyclopentadiene-cyclooctadiene adduct [13560-89-9] 8, A 8, and glass fibers 35% produced test pieces with burn time 11 s, **nylon 6** containing 18 or 11% Diels-Alder adduct and 12% ZnO or 7% ZnO and 3% CaCO₃ had burn time 11-13 and 11s, resp.

IC C09C001-04

CC 36-6 (Plastics Manufacture and Processing)

Kat, these records fall outside the date range > 1999.

=> D 1152 1-8 CBIB ABS HITIND

L152 ANSWER 1 OF 8 HCA COPYRIGHT 2004 ACS on STN

139:101876 Binder **resin compositions**, production process, and use thereof. Takamoto, Nasuke; Yoshioka, Hidetoshi (Nippon Paper Industries Co., Ltd., Japan). PCT Int. Appl. WO 2003057778 A1 20030717, 33 pp. DESIGNATED STATES: W: CN, DE, GB, KR, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2002-JP13345 20021220. PRIORITY: JP 2001-400090 20011228; JP 2002-53418 20020228.

AB The present invention relates to (i) a binder **resin** composition containing a chlorinated propylene random **copolymer** which is obtained by **copolymg.** propylene in the presence of a metallocene catalyst to obtain a propylene random **copolymer** having a m.p. (T_m) as measured with a differential scanning calorimeter (DSC) of 115-165° and chlorinating the random **copolymer** to a chlorine content of 10-40% and which has a weight average mol. weight of 3,000-250,000 and (ii) a binder **resin** composition containing a carboxylated chlorinated propylene random **copolymer** which is obtained by **copolymg.** propylene in the presence of a metallocene catalyst to obtain a propylene random **copolymer** having a T_m as measured with a DSC of 115-165°, grafting 0.1-20% α,β-unsatd. carboxylic acid or anhydride thereof onto the random **copolymer**, and then chlorinating the graft **copolymer** to a chlorine content of 10-40% and which has a weight mol. weight of 30,000-220,000. Thus, a metallocene catalyst-catalyzed propylene random **copolymer** with propylene content 97%, ethylene content 3%, melt flow rate 2.0 g/10 min, and T_m 125° was aged in an extruder 350° to give a random **copolymer** with melt viscosity 1500 mPa-s, 500 g of which was chlorinated with a chlorine gas, and 2% Epikote 828 was added therein to give a chlorinated propylene random **copolymer** with chlorination ratio 20%, Mw 49,800, Mn 26,200, and good adhesion when used as a primer for polypropylene, polyvinyl chloride, polycarbonate, polyethylene terephthalate, acrylonitrile-butadiene-styrene **copolymer**, and **nylon**.

IC ICM C08L023-28

ICS C08F008-22; C09D123-28; C09J123-28

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

ST binder resin compn prepns chlorinated propylene ethylene
copolymer

IT Sealing compositions
(heat; preparation of binder **resin** compns. for paints useful for)

IT Binders
(preparation of binder **resin** compns.)

IT Paints
(preparation of binder **resin** compns. for paints)

IT Adhesives
Plastic films
Primers (paints)
(preparation of binder **resin** compns. for paints useful for)

IT **Polyamides, uses**
Polycarbonates, uses
Polyesters, uses
Polyolefins
RL: TEM (Technical or engineered material use); USES (Uses)
(preparation of binder **resin** compns. for paints useful for)

IT Inks
(printing; preparation of binder **resin** compns. for paints useful for)

IT **110-16-7DP, Maleic acid, graft copolymers with**
propylene random **copolymers**, chlorinated 9010-79-1DP,
Ethylene-propylene **copolymer**, chlorinated, optionally graft
copolymers with **maleic acid**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of binder **resin** compns.)

IT 9002-86-2, Polyvinyl chloride 9003-07-0, TX 933A **9003-56-9**,
Acrylonitrile-butadiene-styrene **copolymer** 25038-59-9,
Polyethylene terephthalate, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(preparation of binder **resin** compns. for paints useful for)

L152 ANSWER 2 OF 8 HCA COPYRIGHT 2004 ACS on STN

139:70116 Manufacture of recycled resin molded products. Ebisawa, Atsushi;
Sato, Hiroshi (Nihon GE Plastics, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP
2003191282 A2 20030708, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION:
JP 2001-396790 20011227.

AB Using an injection mold, virgin resin materials are discharged in the mold
so as to form a skin layer, recycled resin materials are then discharged
to form a core layer, and further virgin resin materials are discharged to
form a skin layer. Alternatively recycled resin materials and virgin
resin materials are simultaneously discharged into a mold so as to form
core and skin layers, resp. Also claimed is manufacture of the molded products
by placing a printed film in a concave of a split mold of an injection
molding apparatus and discharging recycled resin materials to the mold in a
molten state.

IC ICM B29C045-16
ICS B29C045-14; B29K105-26

CC 38-2 (Plastics Fabrication and Uses)

IT **Carbon fibers, uses**
Clays, uses
Glass beads
Glass fibers, uses
Mica-group minerals, uses
RL: MOA (Modifier or additive use); USES (Uses)
(fillers; manufacture of recycled resin molded products)

IT **Polyamides, uses**

Polycarbonates, uses
Polyesters, uses
Polyoxyphenylenes
Polythiophenylenes

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(manufacture of recycled resin molded products)

IT **Crystal whiskers**

(titanium oxide, fillers; manufacture of recycled resin molded products)

IT 9003-53-6, Polystyrene 9003-56-9, **ABS resin**

24968-12-5, Poly(butylene terephthalate) 26948-62-9, Poly(ethylene isophthalate)
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(manufacture of recycled resin molded products)

L152 ANSWER 3 OF 8 HCA COPYRIGHT 2004 ACS on STN

139:69981 Halogen-free fire-resistant

thermoplastic resin composition and
fiber-reinforced **resin composition**. Kaneko, Manabu;
Yokohama, Hisaya (Mitsubishi Rayon Co., Ltd., Japan). Jpn. Kokai Tokkyo
Koho JP 2003183509 A2 20030703, 9 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 2001-380577 20011213.

AB The composition contains a **thermoplastic resin** 100, red P
1-50, and an acidic phosphate ester 0.01-10 parts, 60-95% of which is
blended with 5-40% of fiber fillers, preferably, glass **fibers**
and/or **carbon fibers**, to give the reinforced composition
Thus, 30 parts of glass fiber (ECS 03T-187) was added to 70 parts of
100:0.2:18 mixture of **nylon 6** (Ube **Nylon 1011FB**),
phosphate (ADK Stab AX 71), and red P (Novaexcel 140) in melt kneading
then the resulted composition was injection-molded to give test pieces showing
UL-94 **flame retardance** V-0, heat-distortion temperature
175°, and Izod impact strength 50 J/m.

IC ICM C08L101-00

ICS C08J005-04; C08K003-02; C08K005-521

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 57

ST halogen free **fire resistant thermoplastic**
resin; red phosphorus **fireproofing** agent polyamide;
acidic phosphate **fireproofing** agent polyamide; glass fiber
reinforced **thermoplastic resin**

IT Glass fibers, uses

RL: MOA (Modifier or additive use); USES (Uses)
(ECS 03T-198; **thermoplastic resin** composition containing
halogen-free **fireproofing** agent for fiber-reinforced
plastics)

IT **Carbon fibers, uses**

RL: MOA (Modifier or additive use); USES (Uses)
(TR06U; **thermoplastic resin** composition containing
halogen-free **fireproofing** agent for fiber-reinforced
plastics)

IT Reinforced plastics

RL: TEM (Technical or engineered material use); USES (Uses)
(carbon fiber-reinforced; **thermoplastic**
resin composition containing halogen-free **fireproofing** agent

- for fiber-reinforced **plastics**)
- IT Reinforced **plastics**
RL: TEM (Technical or engineered material use); USES (Uses)
(glass fiber-reinforced; **thermoplastic resin** composition
containing halogen-free **fireproofing** agent for fiber-reinforced
plastics)
- IT Fluoropolymers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(in **thermoplastic resin** composition containing halogen-free
fireproofing agent for fiber-reinforced **plastics**)
- IT Fire-resistant materials
Fireproofing agents
Heat-resistant materials
Impact-resistant materials
(**thermoplastic resin** composition containing halogen-free
fireproofing agent for fiber-reinforced **plastics**)
- IT Acrylic polymers, uses
Polyamides, uses
Polycarbonates, uses
Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(**thermoplastic resin** composition containing halogen-free
fireproofing agent for fiber-reinforced **plastics**)
- IT 87110-89-2, Novarex 7022
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(Novalex 7022; **thermoplastic resin** composition containing
halogen-free **fireproofing** agent for fiber-reinforced
plastics)
- IT 26590-50-1, U **Polymer** U 100
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(U **Polymer** U 100; **thermoplastic resin**
composition containing halogen-free **fireproofing** agent for
fiber-reinforced **plastics**)
- IT 9002-84-0, Fluon CD-1
RL: MOA (Modifier or additive use); USES (Uses)
(in **thermoplastic resin** composition containing halogen-free
fireproofing agent for fiber-reinforced **plastics**)
- IT 7723-14-0, Novaexcel 140, uses
RL: MOA (Modifier or additive use); USES (Uses)
(red; **thermoplastic resin** composition containing
halogen-free **fireproofing** agent for fiber-reinforced
plastics)
- IT 24968-12-5P, 1,4-Butanediol-terephthalic acid **copolymer**, sru
26062-94-2P, 1,4-Butanediol-terephthalic acid **copolymer**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)
(**thermoplastic resin** composition containing halogen-free
fireproofing agent for fiber-reinforced **plastics**)
- IT 39471-52-8, ADK Stab AX 71
RL: MOA (Modifier or additive use); USES (Uses)
(**thermoplastic resin** composition containing halogen-free
fireproofing agent for fiber-reinforced **plastics**)
- IT 9003-56-9, Diapet 1001 25038-54-4, Ube **Nylon** 1011FB,
uses 25038-59-9, Dianite MA 521H, uses 168255-46-7, Toughlon A 1500
551964-42-2, Dialac S 351 551964-74-0, Dialac S 210

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(thermoplastic resin composition containing halogen-free fireproofing agent for fiber-reinforced plastics)

L152 ANSWER 4 OF 8 HCA COPYRIGHT 2004 ACS on STN

138:305412 Chemically modified polyolefin elastomer **compositions** with improved impact strength and their manufacture. Kim, Sang Bae; Na, Sung Su; Jeyong, Yeon Won (S. Korea). U.S. Pat. Appl. Publ. US 2003073783 A1 20030417, 7 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-73070 20020207. PRIORITY: KR 2001-62795 20011012.

AB The elastomer composition includes a polyolefin resin and a chemical modified ethylene- α -olefin elastomer mixed with the polyolefin resin. The chemical modified polyolefin elastomer compns. is prepared by mixing an ethylene- α -olefin elastomer (e.g., EPDM rubber) and a polyolefin (e.g., polypropylene); adding ≥ 1 monomer containing an unsatd. organic compound having ≥ 1 carbonyl group (e.g., maleic acid) into the mixing; and polymerizing ≥ 1 monomers in the presence of a grafting initiator.

IC ICM C08F004-00

NCL 525244000

CC 39-9 (Synthetic Elastomers and Natural Rubber)

Section cross-reference(s): 37

IT Carbonates, uses

Linear low density polyethylenes

Polyamides, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(chemical modified polyolefin elastomer compns. with improved impact strength and their manufacture)

IT 110-16-7DP, Maleic acid, reaction products with EPDM rubber

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chemical modified polyolefin elastomer compns. with improved impact strength and their manufacture)

IT 115-07-1D, Propylene, polymers or block polymers 2274-11-5D, Ethylene acrylate, copolymer 9002-86-2, PVC 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-27-4, Polyisobutene 9003-28-5, Polybutene 9003-56-9, ABS 25038-54-4, Nylon 6, uses 32131-17-2, Nylon 66, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(chemical modified polyolefin elastomer compns. with improved impact strength and their manufacture)

L152 ANSWER 5 OF 8 HCA COPYRIGHT 2004 ACS on STN

138:57075 Phosphate **flame retardant**-containing

resin composition for plating substrate, **resin** moldings and metal plated parts prepared therefrom. Tezuka, Kouichi; Fujii, Seizo (Mitsubishi Rayon Co., Ltd., Japan). PCT Int. Appl. WO 2002102894 A1 20021227, 44 pp. DESIGNATED STATES: W: CN, KR, US. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2002-JP5189 20020529. PRIORITY: JP 2001-165739 20010531; JP 2001-346404 20011112.

AB A **resin** composition for plating substrates comprises 100 parts of a **resin** composition (C) composed of 10-60 mass% of a graft **copolymer** (A) prepared by the graft **polymerization** of a monomer component (A2) containing an aromatic alkenyl compound monomer (a) and a vinyl cyanide monomer (b) to a rubbery **polymer** (A1) with a average

particle size of 0.1-0.6 μm , which represented 5-25 mass% in (C), and 40-90 mass% of another **polymer** (B) (provided that (A) + (B) = 100 mass%), 5-40 parts of a phosphate-type **flame retardant** (D) with a mol. weight >326 or 2-40 parts by mass of a red phosphorus-based **flame retardant** (D'), and optionally, inorg. filler, such as **carbon fiber**. The **resin** composition (C) for plating substrates is good in stability of processing such as moldability, dimensional stability, mech. strength, and plating properties, and is environmentally friendly as well; therefore, excellent metal plated parts exhibiting good thermal conductivity, which are suitable for a housing of a notebook PC or a portable device, can be provided through processing the **resin** composition for a plating substrate to prepare **resin** moldings, and forming a metal plating layer on the resultant **resin** moldings. Thus, 40 mass% of graft **copolymer** containing 20 mass% rubbery **polymer**, which was prepared from the graft **polymerization** of acrylonitrile and styrene onto polybutadiene, 60 mass% of acrylonitrile-styrene **copolymer** containing 30% acrylonitrile and 70% styrene, and phosphate **flame-retardant** (ADK Stab FP500) were mixed to obtain the invented **resin** composition for plating substrates.

- IC ICM C08L051-04
ICS C08L101-00; C08K005-521; C25D005-56
CC 38-3 (Plastics Fabrication and Uses)
ST **ABS** compn plating substrate molding metal plated part; phosphate **flame retardant** plating substrate; acrylonitrile styrene **copolymer fire resistant** blend plating substrate
IT Glass fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(ECS 03T191, inorg. filler; Phosphate flam retardant-containing **resin** composition for plating substrate and its applications)
IT **Fire-resistant** materials
(Phosphate flam retardant-containing **resin** composition for plating substrate and its applications)
IT **Polyamides**, uses
Polycarbonates, uses
Polyesters, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Phosphate flam retardant-containing **resin** composition for plating substrate and its applications)
IT **Fireproofing** agents
(Phosphate flam retardant-containing **resin** composition for plating substrate and its applications for plating substrate, **resin** moldings and metal plated parts)
IT **Carbon fibers**, uses
RL: MOA (Modifier or additive use); USES (Uses)
(Pyrofil TR 06U, inorg. filler; Phosphate flam retardant-containing **resin** composition for plating substrate and its applications)
IT Polysiloxanes, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(acrylic; Phosphate flam retardant-containing **resin** composition for plating substrate and its applications)
IT Fillers
(inorg.; Phosphate flam retardant-containing **resin** composition for plating substrate and its applications)

- IT 165320-93-4P, 1,3-Butadiene-Butyl acrylate-allyl methacrylate-ethylene glycol dimethacrylate-acrylonitrile-styrene graft **copolymer** 191859-26-4P, Octamethylcyclotetrasiloxane-(3-methacryloxypropyl)dimethoxymethylsilane-TEOS-butyl acrylate-allyl methacrylate-1,3-butanenediol dimethacrylate-acrylonitrile-styrene graft **copolymer** 208708-34-3P, Butyl acrylate-1,3-butylene glycol dimethacrylate-allyl methacrylate-acrylonitrile-styrene graft **copolymer**
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(Phosphate flame retardant-containing **resin** composition for plating substrate and its applications)
- IT 9003-54-7, Acrylonitrile-styrene **copolymer** 24936-68-3, 7022A, uses 24968-12-5, Tufpet N 1000 25037-45-0 **25038-54-4**, 1011FB, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Phosphate flame retardant-containing **resin** composition for plating substrate and its applications)
- IT 106677-58-1P, Butadiene-acrylonitrile-styrene graft **copolymer**
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(Phosphate **flame retardant**-containing **resin** composition for plating substrate and its applications)
- IT 26062-94-2
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Phosphate **flame retardant**-containing **resin** composition for plating substrate and its applications)
- IT 139189-30-3, ADK Stab FP 500
RL: MOA (Modifier or additive use); USES (Uses)
(**flame retardant**, PX 200; Phosphate **flame retardant**-containing **resin** composition for plating substrate and its applications)
- IT 1330-78-5, TCP 5945-33-5, ADK Stab FP 700 25155-23-1, TXP 57583-54-7, CR 733S 436810-64-9, Reofos BAPP
RL: MOA (Modifier or additive use); USES (Uses)
(**flame retardant**; Phosphate **flame retardant**-containing **resin** composition for plating substrate and its applications)

L152 ANSWER 6 OF 8 HCA COPYRIGHT 2004 ACS on STN

138:40076 Phosphorus-containing **fire-resistant**

resin composition for plated substrate suitable to elec. plated components. Tezuka, Koichi; Fujii, Seizo (Mitsubishi Rayon Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002363416 A2 20021218, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-165739 20010531.

AB Title composition with good processibility, dimensional stability, mech. strength, plating efficiency, and environmentally friendly as well, comprises (A) graft **copolymer** 10-60, which is prepared by grafting of aromatic alkenyl monomer and vinyl cyanide monomer onto rubbery

polymer, (B) other **polymer** 40-90 (A + B = 100), and (C) red phosphorus-type **fire-resistant** agent 2-40 parts. Thus a composition comprising (A) graft **copolymer** prepared from polybutadiene latex, Bu acrylate-methacrylic acid **copolymer** latex, acrylonitrile, and styrene 40, acrylonitrile-styrene **copolymer** 60, Novaexcel 140 30 parts showed bending modulus 7000 MPa, strong Izod impact strength, thermal conductivity 0.60 W/m·°C, and good **fire-resistance**, processibility, and plating efficiency.

IC ICM C08L101-00
ICS C08J005-00; C08J007-06; C08K003-00; C08K003-02; C08L051-04;
C25D005-56; C25D007-00

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 39, 76

ST **fire resistant** compn plating elec component; rubber
graft **copolymer** phosphorus **fire resistant**
compn

IT Glass fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(ECS 03T191, filler; preparation of phosphorus-containing **fire-**
resistant resin composition for plated substrate suitable
to elec. plated components)

IT Carbon fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(Pyrofil TR 06U, filler; preparation of phosphorus-containing **fire-**
resistant resin composition for plated substrate suitable
to elec. plated components)

IT Polysiloxanes, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(acrylic, graft; preparation of phosphorus-containing **fire-**
resistant resin composition for plated substrate suitable
to elec. plated components)

IT Electric apparatus
Fillers
Fireproofing agents
(preparation of phosphorus-containing **fire-resistant**
resin composition for plated substrate suitable to elec. plated
components)

IT **Polyamides, properties**
Polycarbonates, properties
Polyesters, properties
Polymer blends
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(preparation of phosphorus-containing **fire-resistant**
resin composition for plated substrate suitable to elec. plated
components)

IT **Polyamides, uses**
Polysiloxanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(preparation of phosphorus-containing **fire-resistant**
resin composition for plated substrate suitable to elec. plated
components)

IT Molded **plastics**, uses
RL: TEM (Technical or engineered material use); USES (Uses)

(preparation of phosphorus-containing **fire-resistant resin** composition for plated substrate suitable to elec. plated components)

- IT 113735-81-2P, Acrylonitrile-allyl methacrylate-1,3-butadiene-butyl acrylate-ethylene glycol dimethacrylate-methacrylic acid-styrene graft **copolymer** 117646-49-8P, Acrylonitrile-1,3-butadiene-butyl acrylate-methacrylic acid-styrene graft **copolymer**
 191859-26-4P, Acrylonitrile-allyl methacrylate-butyl acrylate-1,3-butylene glycol dimethacrylate-ethyl orthosilicate- γ -methacryloxypropylidemethoxymethylsilane-octamethyltetracyclosiloxane-styrene graft **copolymer** 208708-34-3P, Acrylonitrile-allyl methacrylate-butyl acrylate-1,3-butylene glycol dimethacrylate-styrene graft **copolymer**
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of phosphorus-containing **fire-resistant resin** composition for plated substrate suitable to elec. plated components)
- IT 9003-54-7, Acrylonitrile-styrene **copolymer** 24936-68-3, 7022A, properties 24968-12-5, Tufpet N 1000 25037-45-0
 25038-54-4, 1011FB, properties 26062-94-2, 1,4-Butanediol-terephthalic acid **copolymer**
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (preparation of phosphorus-containing **fire-resistant resin** composition for plated substrate suitable to elec. plated components)
- IT 7723-14-0, Novaexcel 140, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (red, **fire-resistant** agent; preparation of phosphorus-containing **fire-resistant resin** composition for plated substrate suitable to elec. plated components)

L152 ANSWER 7 OF 8 HCA COPYRIGHT 2004 ACS on STN

136:355877 **Thermoplastic resin composition**, molding material, and molded article. Wadahara, Eisuke; Yoshioka, Kenichi; Ishibashi, Soichi (Toray Industries, Inc., Japan). U.S. US 6384128 B1 20020507, 21 pp. (English). CODEN: USXXAM. APPLICATION: US 2000-619536 20000719.

AB A **thermoplastic resin** composition is capable of providing a thin walled molded article whose **flame retardancy** (with a thickness 1.6 mm) is V-0 or better, and which comprises, where the component [B] satisfies the conditions (B1) and/or (B2), [A] an elec. conductive fiber, [B] a C powder, and [C] a **thermoplastic resin**; (B1) Raman scattering intensity ratio I2/I1 is 0.55-0.8; (B2) Raman scattering intensity ratio I2/I3 is 0.54-0.8; where I1 is local maximum value of Raman scattering intensity appearing near a Raman shift at 1360 cm⁻¹; I2 local min. value of the Raman scattering intensity appearing near a Raman shift at 1480 cm⁻¹; I3 local maximum value of the Raman scattering intensity appearing near a Raman shift at 1600 cm⁻¹. The molding material may contain a **flame retardant**. A molding of PAN C **fiber** 30, carbon black [I2/I1 0.68, I2/I3 0.6] 5.0, nylon 6 45.2, PO-64P 14.2, SbO 5.5, and PTFE 0.1 parts had volume resistivity 0.25 $\Omega\text{-cm}$, **flame resistance** V-0, and flexural modulus 20.9 GPa.

IC ICM C08K003-04

NCL 524496000

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38

ST **thermoplastic** conductive **fiber carbon** filler
molding

IT Electric conductors
(fiber; **thermoplastic** molding material having good elec.
conductivity, **flame resistance**, moldability, and strength)

IT **Carbon fibers**, uses
RL: MOA (Modifier or additive use); USES (Uses)
(graphite; **thermoplastic** molding material having good elec.
conductivity, **flame resistance**, moldability, and strength)

IT **Carbon fibers**, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyacrylonitrile-based, optionally nickel-plated;
thermoplastic molding material having good elec. conductivity,
flame resistance, moldability, and strength)

IT Metallic fibers
RL: MOA (Modifier or additive use); USES (Uses)
(stainless steel; **thermoplastic** molding material having good
elec. conductivity, **flame resistance**, moldability, and
strength)

IT **Fireproofing** agents
Liquid crystals, **polymeric**
(**thermoplastic** molding material having
good elec. conductivity, **flame resistance**, moldability,
and strength)

IT Carbon black, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**thermoplastic** molding material having good elec. conductivity,
flame resistance, moldability, and strength)

IT Phenolic resins, properties
Polyamides, properties
Polycarbonates, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(**thermoplastic** molding material having good elec. conductivity,
flame resistance, moldability, and strength)

IT Phenolic resins, uses
Polyesters, uses
Polyolefins
Polyoxyphenylenes
Polythiophenylenes
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(**thermoplastic** molding material having good elec. conductivity,
flame resistance, moldability, and strength)

IT Molded plastics, properties
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(**thermoplastic** molding material having good elec. conductivity,
flame resistance, moldability, and strength)

IT Reinforced plastics
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(**thermoplastic** molding material having good elec. conductivity,
flame resistance, moldability, and strength)

IT **9003-56-9, ABS resin**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or

engineered material use); USES (Uses)
 (Toyolac 100; **thermoplastic** molding material having good
 elec. conductivity, **flame resistance**, moldability, and
 strength)

IT 7723-14-0, Novaexcel 140, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (red; **thermoplastic** molding material having good elec. conductivity,
flame resistance, moldability, and strength)

IT 1309-42-8, Kisuma 5EU 1309-64-4, ATOX-S, uses 25038-89-5,
 Polyflon F 201 37640-57-6, MC-440 40039-93-8, EP-100 74082-93-2,
 PO-64P
 RL: MOA (Modifier or additive use); USES (Uses)
 (**thermoplastic** molding material having good elec. conductivity,
flame resistance, moldability, and strength)

IT 9003-35-4, PR-50731 24936-68-3, Lexan 121R, properties 25037-45-0
25038-54-4, Nylon 6, properties 327025-49-0,
 Bayblend FR 2000 420784-34-5, Siveras L 201E
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (**thermoplastic** molding material having good elec. conductivity,
flame resistance, moldability, and strength)

L152 ANSWER 8 OF 8 HCA COPYRIGHT 2004 ACS on STN

136:119261 **Thermoplastic resin pellet compositions**

with good rigidity, fire and impact resistance, and processability and
 their injection molded products. Ito, Hiroyuki; Miyazaki, Hiroaki;
 Kitada, Fusamitsu; Noro, Masahiko (Technopolymer K. K., Japan). Jpn.
 Kokai Tokkyo Koho JP 2002020606 A2 20020123, 15 pp. (Japanese). CODEN:
 JKXXAF. APPLICATION: JP 2000-204565 20000706.

AB Title compns. comprise (1) 20-80% fiber-reinforced **thermoplastic**
 pellet compns. comprising (A) 40-80% **thermoplastic**
resins selected from aromatic polycarbonates, aromatic polyesters, and
 polyamides and (B) 20-60% fibrous fillers and (2) 20-80% **fire-**
resistant thermoplastic pellet compns. comprising (C)
 30-60% rubber-reinforced **resins** containing (a) 5-70% rubbers and (b)
 30-95% monomer components selected from aromatic vinyl compds., vinyl
 cyanides, (meth)acrylate esters, acid anhydrides, and maleimides, (D)
 9-40% **fire retardants**, and (E) 1-10% **fire**
retardant auxiliaries. The compns. may comprise (1) 20-80%
 fiber-reinforced **thermoplastic** pellet compns. comprising (A)
 40-80% **thermoplastic resins** selected from aromatic
 polycarbonates, aromatic polyesters, and polyamides and (B) 20-60% fibrous
 fillers and (3) 20-80% **fire-resistant**
thermoplastic pellet compns. comprising (A) 5-30%
thermoplastic resins selected from aromatic polycarbonates,
 aromatic polyesters, and polyamides, (C) 30-60% rubber-reinforced
resins containing (a) 5-70% rubbers and (b) 30-95% monomer components
 selected from aromatic vinyl compds., vinyl cyanides, (meth)acrylate esters,
 acid anhydrides, and maleimides, (D) 9-50% **fire**
retardants, and (E) 1-10% **fire retardant**
 auxiliaries. Thus, 60 parts fiber-reinforced **thermoplastic**
 pellet comprising 60% Toughlon FN 2200 and 40% HTA-C6 and 40 parts
fire-resistant thermoplastic pellet comprising
ABS graft polymer (preparation given) 50, AS **resin**
 7, YDB 408 35, and antimony trioxide 8% were blended and injection molded
 showing good appearance, Charpy impact strength, rigidity, and
fire resistance and heat deformation temperature 97°.

IC ICM C08L069-00

ICS B29B007-24; B29B007-34; B29C045-00; C08J005-00; C08K003-00;
C08K005-00; C08K007-02; C08L051-04; C08L067-00; C08L077-00;
B29K067-00; B29K069-00; B29K077-00; B29K105-12

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38

ST **thermoplastic** pellet compn rigidity fire impact resistance;
injection molded fiber reinforced **thermoplastic** blend

IT **Carbon fibers**, properties
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(HTA-C6; **thermoplastic resin** pellet compns. with
good rigidity, fire and impact resistance, and processability for
injection molding)

IT Polycarbonates, properties
Polyesters, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(aromatic; **thermoplastic resin** pellet compns. with
good rigidity, fire and impact resistance, and processability for
injection molding)

IT Epoxy resins, uses
RL: MOA (Modifier or additive use); USES (Uses)
(brominated, **fire retardant**; **thermoplastic**
resin pellet compns. with good rigidity, fire and impact
resistance, and processability for injection molding)

IT Reinforced plastics
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(carbon fiber-reinforced **thermoplastics**;
thermoplastic resin pellet compns. with good
rigidity, fire and impact resistance, and processability for injection
molding)

IT Reinforced plastics
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(fiber-reinforced **thermoplastics**; **thermoplastic**
resin pellet compns. with good rigidity, fire and impact
resistance, and processability for injection molding)

IT Fluoropolymers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**fire retardant** auxiliary; **thermoplastic**
resin pellet compns. with good rigidity, fire and impact
resistance, and processability for injection molding)

IT Reinforced plastics
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(glass fiber-reinforced; **thermoplastic resin** pellet
compns. with good rigidity, fire and impact resistance, and
processability for injection molding)

IT **Fire-resistant** materials
Fireproofing agents
(**thermoplastic resin** pellet compns. with good
rigidity, fire and impact resistance, and processability for injection
molding)

IT Glass fibers, properties
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(**thermoplastic resin** pellet compns. with good

- rigidity, fire and impact resistance, and processability for injection molding)
- IT Molded **plastics**, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)
- IT **Polyamides**, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)
- IT Polycarbonates, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)
- IT **Polymer** blends
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)
- IT **Plastics**, properties
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastics; thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)
- IT 1309-64-4, Antimony trioxide, uses 9002-84-0, TF 1620
RL: MOA (Modifier or additive use); USES (Uses)
(**fire retardant auxiliary; thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)
- IT 5945-33-5, FP 600 40039-93-8, YDB 408 139189-30-3, PX 200
RL: MOA (Modifier or additive use); USES (Uses)
(**fire retardant; thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)
- IT 9003-18-3P, Acrylonitrile-butadiene **copolymer**
106677-58-1P, Acrylonitrile-butadiene-styrene graft **copolymer**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)
- IT 24936-68-3, Toughlon FN 2200, properties 25037-45-0 **25038-54-4**, MC 102, properties 381669-83-6, Duranex 101EP
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic resin** pellet compns. with good rigidity, fire and impact resistance, and processability for injection molding)

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=> D L192 1-16 ALL

L192 ANSWER 1 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
AN R:875179 RAPRA FS Rapra Abstracts
TI RECYCLING OF BLENDS OF ACRYLONITRILE-BUTADIENE-STYRENE
(ABS) AND POLYAMIDE.
AU Liu X; boldizar A; Rigdahl M; Bertilsson H (Chalmers University of
Technology)
SO Journal of Applied Polymer Science 86, No.10, 5th Dec.2002, p.2535-43
ISSN: 0021-8995
CODEN: JAPNAB
PY 2002
DT Journal
LA English
AB Routes to upgrade recycled engineering plastics, especially mixed
plastics with ABS as the major component, are evaluated. A core-shell
impact modifier is successfully used to improve the impact strength of
blends of ABS and ABS/**polycarbonate** (PC) blends recycled from
the automotive industry. However, the presence of other immiscible
components like polyamide (PA), even in small amounts, can lead to
deterioration in the overall properties of the blends. A styrene-
maleic anhydride (SMA) copolymer and other commercial polymer
blends are used to promote the compatibilisation of ABS and PA. The
core-shell impact modifier is again found to be an efficient additive
with regard to the impact strength of the compatibilised ABS/PA blends.
The results obtained with fresh material blends are quite promising.
However, in blends of recycled ABS and glass fibre-reinforced PA, the
impact strength does not exhibit the desired behaviour. The presence of
poorly bonded glass fibres in the blend matrix is the probable reason for
the poor impact strength compared with that of a blend of recycled ABS
and mineral-filled PA. Although functionalised triblock rubbers (SEBS-MA)
can substantially enhance the impact strength of PA, they do not improve
the impact strength of ABS/PA blends as miscibility with ABS is poor. The
possibilities of using commercial polymer blends to compatibilise
otherwise incompatible polymer mixtures are also explored, giving
promising results. 28 refs.
CC 42C21C391D11; 6125; 8.13
SC *SN; OD; KF
CT ABS; AMIDE POLYMER; BLEND; COMPATIBILISATION; COMPATIBILISER;
COMPATIBILIZATION; COMPATIBILIZER; CORE-SHELL; DATA; ELASTOMER; ELECTRON
MICROSCOPY; ELECTRON SCANNING MICROSCOPY; EXTRUDER; EXTRUDING; EXTRUSION;
FRACTURE MORPHOLOGY; GRAPH; IMPACT MODIFIER; IMPACT PROPERTIES; IMPACT
STRENGTH; INJECTION MOLDING; INJECTION MOULDING; INSTITUTION; MECHANICAL
PROPERTIES; MIXING; MORPHOLOGICAL PROPERTIES; MORPHOLOGY; NYLON

; PLASTIC; POLYAMIDE; PROPERTIES; RECLAIM; RECYCLING; RUBBER; SCANNING ELECTRON MICROGRAPH; SCANNING ELECTRON MICROSCOPY; SEM; TABLES; TECHNICAL; THERMOPLASTIC; TRANSMISSION ELECTRON MICROSCOPY; TWIN-SCREW EXTRUDER

SHR RECYCLING, blends, ABS; BLENDS, ABS, recycling; ACRYLONITRILE
BUTADIENE STYRENE TERPOLYMERS, blends, recycling
GT EUROPEAN UNION; SCANDINAVIA; SWEDEN; WESTERN EUROPE

L192 ANSWER 2 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
AN R:872624 RAPRA FS Rapra Abstracts
TI BASF STEERS A COURSE FOR CHINA.
AU Clerc C
SO Informations Chimie 38, No.433, Nov.2001, p.30-2
ISSN: 0020-045X
CODEN: INFCA8
PY 2001
DT Journal
LA French
AB Investments by BASF in the production of polymers, monomers and other chemicals in China and other Asia-Pacific countries are reviewed. Reference is also made to capacities currently operated or planned for establishment in China by other companies.

L192 ANSWER 3 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
AN R:796024 RAPRA FS Rapra Abstracts
TI SYNDIOTACTIC STYRENE RESIN, THERMOPLASTIC RESIN AND RUBBER.
IN Nakano A; Sumitomo T; Funaki K; Ijitsu T; Sawada M; Kuramoto M; Suzuki M
PA Idemitsu Kosan Co.Ltd.
PI US 6093768 A1 20000725
AI US 1995-464356 19950605
PRAI JP 1987-305838 19871204; JP 1988-3844 19880113; JP 1988-4923
19880114; JP 1988-121700 19880520
DT Patent
LA English
IC ICM C08K0071400714
 ICS C08L0530005300; C08L0510405104; C08L0770607706
AB A composition useful in moulding comprises (A) from 10 to 95% by weight of a syndiotactic styrene resin, (B) from 5 to 90% by weight of a thermoplastic resin, such as a polyolefin, polyester, polyether, polyamide or polycarbonate, and (C) from 1 to 15 parts by weight of a rubber polymer, such as maleic anhydride-modified or unmodified styrene-(butadiene or isoprene) block copolymer.
CC 42C21; 6125; 621
CT ALKENE POLYMER; AMIDE POLYMER; BLEND; BLOCK COPOLYMER;
BUTADIENE-STYRENE COPOLYMER; CARBONATE POLYMER; COMPANIES;
COMPANY; COMPOSITION; ELASTOMER; ETHER POLYMER; ISOPRENE-STYRENE
COPOLYMER; **MALEIC ANHYDRIDE COPOLYMER**; MODIFIED; MOLDING
COMPOUND; MOULDING COMPOUND; NYLON; OLEFIN POLYMER; PLASTIC;
POLYALKENE; POLYAMIDE; **POLYCARBONATE**; POLYETHER; POLYOLEFIN;
POLYSTYRENE; PS; RUBBER; SATURATED POLYESTER; SBR; STYRENE-ISOPRENE
COPOLYMER; SYNDIOTACTIC; TECHNICAL; THERMOPLASTIC
GT JAPAN; USA

L192 ANSWER 4 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
AN R:742620 RAPRA FS Rapra Abstracts
TI ALLIANCE OF TRANSPARENCY AND PERFORMANCE.

AU Renaudat E
SO Plastiques Modernes et Elastomeres 51, No.4, May 1999, p.5-9
ISSN: 0032-1303
CODEN: PMELAW
PY 1999
DT Journal
LA French
AB Developments in transparent polymers are reviewed, with particular reference to **polycarbonates**, PS, styrene copolymers and PP. The properties and applications of these and other transparent polymers are examined.
CC 42C12; 42C21; 42C21A; 43C12; 6; 9; 99211
SC *UJ; KE; KQ; QA; UA
CT ABS; ACRYLIC COPOLYMER; ADDITIVE; AMIDE COPOLYMER; AMIDE POLYMER; APPLICATION; AUTOMOTIVE APPLICATION; BABY FEED BOTTLE; BLOCK COPOLYMER; BLOW MOLDING; BLOW MOULDING; BOTTLE; BOTTLES; **BUTADIENE-STYRENE COPOLYMER**; CAR; CARBONATE POLYMER; CATALYST; CELLULOSE; CHEMICAL PROPERTIES; CHEMICAL RESISTANCE; CHEMICAL RESISTANT; CLARIFYING AGENT; CLOSURE; COLOR; COLOUR; COMPACT DISC; COMPACT DISK; COMPANIES; COMPANY; COMPOUND; COPOLYAMIDE; COSMETICS; CRYSTALLINITY; CYCLOOLEFIN COPOLYMER; DATA; DENSITY; DIGITAL VIDEO DISC; DIGITAL VIDEO DISK; DISC; DOMESTIC APPLIANCE; DOMESTIC EQUIPMENT; DRYING; ELASTOMER; ELECTRICAL APPLICATION; ENGINEERING APPLICATION; ENGINEERING PLASTIC; EXTRUDING; EXTRUSION; EXTRUSION BLOW MOLDING; EXTRUSION BLOW MOULDING; FOOD PACKAGING; HEAT RESISTANCE; HOLLOW ARTICLE; HYDROLYTIC STABILITY; IMPACT PROPERTIES; IMPACT STRENGTH; INJECTION MOLDING; INJECTION MOULDING; KITCHENWARE; LENS; LENSES; LIGHT; LIGHT RESISTANCE; LIGHT TRANSMISSION; **MALEIC ANHYDRIDE COPOLYMER**; MBS; MECHANICAL PROPERTIES; MEDICAL APPLICATION; MELT FLOW INDEX; MELT INDEX; MELT VISCOSITY INDEX; **METHACRYLATE-BUTADIENE-STYRENE TERPOLYMER**; MFI; MOBILE PHONE; MOLEC.WT.; MOLECULAR MASS; MOLECULAR WEIGHT; NUCLEATING AGENT; NYLON; OPHTHALMIC APPLICATION; OPTICAL APPLICATION; OPTICAL DISC; OPTICAL DISK; OPTICAL PROPERTIES; PACKAGING; PE; PEN; PERFUME; PETP; PET; PLASTIC; PMMA; POLYAMIDE; **POLYCARBONATE**; POLYETHYLENE; POLYETHYLENE TEREPHTHALATE; POLYMERISATION; POLYMERISATION CATALYST; POLYMERISATION CATALYSTS; POLYMERIZATION; POLYMERIZATION CATALYST; POLYMETHYL METHACRYLATE; POLYPROPENE; POLYPROPYLENE; POLYSTYRENE; POLYSULFONE; POLYSULPHONE; POLYVINYL CHLORIDE; PP; PROPERTIES; PS; PVC; RECORDING MEDIA; REFRACTIVE INDEX; REFRACTIVE INDICES; REFRIGERATOR; RHEOLOGICAL PROPERTIES; RHEOLOGY; SAN; SBS; SELF-DRYING; SPRAY DRYING; STABILITY; STYRENE COPOLYMER; STYRENE-ACRYLONITRILE COPOLYMER; **STYRENE-BUTADIENE COPOLYMER**; **STYRENE-BUTADIENE-STYRENE BLOCK COPOLYMER**; **STYRENE-MALEIC ANHYDRIDE COPOLYMER**; SULFONE POLYMER; SULPHONE POLYMER; TECHNICAL; TELEPHONE; THERMAL STABILITY; THERMOFORMING; THERMOPLASTIC; THERMOPLASTIC ELASTOMER; THERMOPLASTIC RUBBER; THIN-WALL; TRADE NAME; TRANSPARENCY; TRIBLOCK COPOLYMER; UHMW; ULTRA HIGH MOLECULAR WEIGHT; UV RESISTANCE; VEHICLE LIGHT; VIDEO DISC; VISCOSITY; WALL THICKNESS; WATER ABSORPTION
NPT METALLOCENE
SHR TRANSPARENCY, plastics, carbonate polymers, PS, styrene copolymers, PP; CARBONATE POLYMERS, transparency, properties, applications; PROPYLENE POLYMERS, transparency, properties, applications; STYRENE POLYMERS, transparency, properties, applications; STYRENE COPOLYMERS, transparency, properties, applications
GT WORLD

L192 ANSWER 5 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
AN R:686022 RAPRA FS Rapra Abstracts

TI MORPHOLOGICAL CHANGES PROBED AS RHEOKINETICS OF WHISKER- AND UNFILLED POLYMER BLENDS.
 AU Persson A L; Bertilsson H (Chalmers University of Technology)
 SO Polymer 39, No.18, 1998, p.4183-90
 ISSN: 0032-3861
 CODEN: POLMAG
 PY 1998
 DT Journal
 LA English
 AB Thr rheological time dependencies of both whisker-filled and unfilled PE/polyisobutylene blends and SAN/nylon 6 blends were studied as functions of composition and shear history. A three-step experiment of steady dynamic-steady shear was designed. Morphological sensitivities are discussed. 18 refs.
 CC 42C11; 42C131; 42C21C391; 43C326; 6125; 51M; 9.10.T; 9.11.T
 SC *UL; UK; OD; MB; KE; KF; KN; KR
 CT BLEND; DATA; FILLER; FRACTURE MORPHOLOGY; GRAPH; INSTITUTION; ISOBUTYLENE POLYMER; MECHANICAL PROPERTIES; MORPHOLOGICAL PROPERTIES; MORPHOLOGY; NYLON-6; PE; PLASTIC; POLYBUTYLENE; POLYETHYLENE; POLYISOBUTENE; POLYISOBUTYLENE; RHEOLOGICAL PROPERTIES; RHEOLOGY; SAN; SCANNING ELECTRON MICROSCOPY; SEM; SHEAR PROPERTIES; STYRENE-ACRYLONITRILE COPOLYMER; TABLES; TECHNICAL; TEST; THEORY; THERMOPLASTIC
 NPT ALUMINIUM BORATE; ALUMINUM BORATE
 SHR MORPHOLOGICAL PROPERTIES, PE blends, isobutylene polymer blends, SAN blends, nylon 6 blends; RHEOLOGICAL PROPERTIES, PE blends, isobutylene polymer blends, SAN blends, nylon 6 blends; FILLERS IN, PE blends, isobutylene polymer blends, SAN blends, nylon 6 blends; FILLERS OF, aluminium borate whiskers; BLENDS, PE, isobutylene polymers, SAN, nylon 6, morphology, rheology
 GT SCANDINAVIA; SWEDEN; WESTERN EUROPE
 L192 ANSWER 6 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
 AN R:682290 RAPRA FS Rapra Abstracts
 TI CHEMICAL TECHNOLOGY AS THE BASE OF SUSTAINABLE DEVELOPMENT.
 AU Yumikura R (Asahi Chemical Industry Co.Ltd.)
 SO Informations Chimie No.382, Oct.1996, Suppl., p.49-51
 ISSN: 0020-045X
 CODEN: INFCA8
 PY 1996
 DT Journal
 LA English
 AB The role of the chemical industry in promoting sustainable development and environmental protection is discussed, and a number of developments by Asahi are reported. Those directly concerned with polymers include a process for polycarbonate production without the use of phosgene and methylene chloride, plastics films and membranes, materials for use in the building and automotive industries, and liquefaction processes for the recycling of plastics waste.
 CC 1.10; 43C12; 625; 6M; 6N1; 6R; 8.13
 SC *EN; KQ; OJ; QM; QN; QP; SN
 L192 ANSWER 7 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
 AN R:590788 RAPRA FS Rapra Abstracts
 TI WHISKER-REINFORCED THERMOPLASTIC RESIN COMPOSITION.
 IN Honda T; Sezume T
 PA Tonen Chemical Corp.

CA Chuo-Ku, Tokyo, Japan
PI EP 705877 A1 19960410
DS CH; DE; FR; GB; LI
AI EP 1994-307301 19941005
DT Patent
LA English
IC ICM C08K013-04
ICS C08L077-00
AB This includes 50 to 97 weight% of an amorphous **nylon**, 3 to 50 weight% of **whisker**, such as potassium titanate **whisker** having an average length of 10 to 20 micrometers and an average diameter of 0.2 to 0.5 micrometer, and 0.1 to 5 pbw of an ethylene-bis(stearylamide) compound having a softening point of 100 to 200C, per 100 pbw of the total of the **nylon** and **whisker**. Instead of the **nylon**, 10 to 97 weight% of an amorphous **nylon** and 0 to 40 weight% of a modified PE, which is HDPE modified (at least partially) with an unsaturated carboxylic acid or its anhydride, may be employed. The composition exhibits excellent mechanical properties and release characteristics during manufacture and is suitable for use as small mechanical parts for office equipment, gears and sliding parts.
CC 43C3; 6277
SC *OK; KR
CT AMORPHOUS; CARBOXYLIC ACID ANHYDRIDE COPOLYMER; CARBOXYLIC ACID COPOLYMER; COMPANY; COMPOSITE; COMPOSITION; DIAMETER; ETHYLENE COPOLYMER; ETHYLENE POLYMER; GEAR; HDPE; HIGH DENSITY POLYETHYLENE; LENGTH; MECHANICAL PART; MECHANICAL PROPERTIES; MODIFIED; NYLON; OFFICE EQUIPMENT; PLASTIC; POLYAMIDE; POLYETHYLENE; REINFORCED THERMOPLASTIC; RELEASE PROPERTIES; SLIDING MEMBER; SOFTENING POINT; TECHNICAL; THERMOPLASTIC; WHISKER
NPT ETHYLENE BISSTEARYLAMIDE; POTASSIUM TITANATE
SHR REINFORCED AMIDE POLYMERS, **whisker**; COMPOSITES
GT JAPAN

L192 ANSWER 8 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
AN R:576307 RAPRA FS Rapra Abstracts
TI OPTICAL PROBES FOR REAL-TIME SPECTROSCOPIC **COMPOSITIONAL** ANALYSIS OF **POLYMER** MELTS.
AU Griesser E E; Sahagen A
CS Sensotron Inc.
SO Polyolefins IX. Conference Proceedings
Editor(s): SPE, South Texas Section; SPE, Thermoplastic Materials & Foams Div.
Houston, Tx., 25th Feb-1st March, 1995, p.527-51. 42C1
PY 1995
DT Conference Article
LA English
AB The in-line FTIR analysis of polyolefin terpolymers was demonstrated on a one-inch extruder using a relatively inexpensive commercially available near-infrared FTIR spectrophotometer coupled to a pair of dual-immersion sapphire/fibre optic probes. The results showed the proper compositions of ethylene and accompanying comonomers each time the materials were changed. The procedure appears to be a useful production control method for ISO 9000 certification. Fibre optic analytical probes can also be used with PS and its **copolymers**, ABS, PPO, PPO/ABS, **polycarbonate** alloys, elastomers, polyurethanes, colour concentrates, reaction compounding, PVC compounds, **nylons** and many engineering plastics. The use of this technology in production environments will reduce spectrographic analysis from today's several

hours to 30 seconds. Several methods of mounting and adapting these fibre optic probes for large scale production are suggested. 10 refs.

CC 42C1A; 9922T; 114; 82
 SC *KE; UJ; CC; SC
 CT ABS; ALLOY; ANALYSIS; BLEND; COLOUR CONCENTRATE; COMONOMER; COMPANY; COMPOSITION; COMPOUNDING; CORRELATION; DATA; DIAGRAM; ELASTOMER; ENGINEERING APPLICATION; ENGINEERING PLASTIC; ETHYLENE TERPOLYMER; EXTRUDER; FIBRE OPTIC; FILLER; FOURIER TRANSFORM INFRARED SPECTROSCOPY; FTIR SPECTROSCOPY; GRAPH; IN-LINE; IR SPECTRA; IR SPECTROSCOPY; MATHEMATICAL MODEL; MELT; MODIFIED; MONITORING; NEAR-INFRARED SPECTROSCOPY; NYLON; OLEFIN TERPOLYMER; OPTIC FIBRE; OPTICAL PROBE; PLASTIC; POLYAMIDE; POLYCARBONATE; POLYOLEFIN; POLYPHENYLENE OXIDE; POLYSTYRENE; POLYURETHANE; POLYVINYL CHLORIDE; PPO; PROBE; PS; PU; PVC; QUALITY CONTROL; REACTION; REAL TIME; RUBBER; SPECIFICATION; STYRENE COPOLYMER; TABLES; TECHNICAL; TERPOLYMER; THERMOPLASTIC; COLOR CONCENTRATE; FIBER OPTIC; OPTIC FIBER

NPT ALUMINIUM OXIDE; SAPPHIRE; ALUMINUM OXIDE
 SHR OLEFIN TERPOLYMERS, spectroscopy, analysis, composition, quality control, extrusion; SPECTROSCOPY, olefin terpolymers, FTIR, analysis, quality control; ANALYSIS, olefin terpolymers, quality control, optical probes, extrusion; QUALITY CONTROL, olefin terpolymers, analysis, spectroscopy, optical probes, extrusion; EXTRUSION, olefin terpolymers, quality control, analysis, spectroscopy

GT USA

L192 ANSWER 9 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
 AN R:568147 RAPRA FS Rapra Abstracts
 TI ABRASIVE WEAR OF **POLYMER COMPOSITES**.
 AU Bolvari A E; Glenn S B
 CS LNP Engineering Plastics Inc.
 SO Antec '95. Vol.II. Conference Proceedings
 Editor(s): SPE
 Boston, Ma., 7th-11th May 1995, p.1655-9. 012
 PY 1995
 DT Conference Article
 LA English
 AB Wear mechanisms of polymer composites are examined, and results presented of studies of a number of thermoplastic materials. It is shown how some composites behave under two extreme wear cases, i.e. sliding against smooth steel (adhesive wear) and abrasion by coarse grinding paper (abrasive wear). The influence of transfer film properties and fibres, fillers and lubricants on wear performance is discussed. 8 refs.
 CC 627; 9522T
 SC *OK; UG
 CT ABRASION; ABRASION RESISTANCE; ABRASIVE MATERIAL; ABS; ACTIVATION ENERGY; ACTIVATION VOLUME; ADDITIVE; ADHESION; ANALYSIS; ARAMID FIBRE-REINFORCED PLASTIC; ASPECT RATIO; ATTRITION; BREAKING STRESS; BRITTLENESS; **CARBON FIBRE-REINFORCED PLASTIC**; CFRP; COEFFICIENT OF FRICTION; COMPANY; COMPOSITE; CONFERENCE; CONTACT AREA; CRACK PROPAGATION; CRACK RESISTANCE; CRACKING; DATA; DEFORMATION; DENSITY; DUCTILITY; ELECTRON SPECTROSCOPY FOR CHEMICAL ANALYSIS; ELONGATION AT BREAK; ENGINEERING APPLICATION; ENGINEERING PLASTIC; EQUATION; ESCA; ETHYLENE POLYMER; FAILURE; FATIGUE; FIBRE ATTRITION; FIBRE CONTENT; FIBRE ORIENTATION; FILLED; FILLER; FORCE; FRACTURE; FRACTURE ENERGY; FRICTIONAL PROPERTIES; GLASS CONTENT; GLASS FIBRE-REINFORCED PLASTIC; GRAPH; GRP; HARDNESS; INDENTATION; LDPE; LOADING; LOW DENSITY POLYETHYLENE; LUBRICANT; MECHANICAL PROPERTIES; MECHANISM; MICROCRAZ; MODEL; NYLON-6-6; PBTP; PE; PENETRATION;

PETP; PLASTIC; PMMA; POLYAMIDE; POLYAMIDE-6,6;
 POLYBUTYLENE TEREPHTHALATE; POLYCARBONATE; POLYETHYLENE;
 POLYETHYLENE TEREPHTHALATE; POLYMERIC FILLER; POLYMERIC LUBRICANT;
 POLYMETHYL METHACRYLATE; POLYPHENYLENE SULPHIDE; POLYTETRAFLUOROETHYLENE;
 POLYURETHANE; PPS; PTFE; PU; REINFORCED PLASTIC; REINFORCED
 THERMOPLASTIC; REINFORCEMENT; SCANNING ELECTRON MICROSCOPY; SEM; SHORT
 FIBRE; SLIDING; STRAIN; STRAIN RATE; STRESS; STRESS-STRAIN PROPERTIES;
 SURFACE CRACKING; SYNTHETIC FIBRE-REINFORCED PLASTIC; TABLES; TECHNICAL;
 TEST; TEST EQUIPMENT; TESTING; THERMOPLASTIC; THERMOSET; TOUGHNESS;
 TRANSFER FILM; TRIBOLOGICAL PROPERTIES; TRIBOLOGY; VELOCITY; VOLUME
 FRACTION; WEAR; WEAR RESISTANCE; YIELD STRESS; ARAMID FIBER-REINFORCED
 PLASTIC; CARBON FIBER-REINFORCED PLASTIC; FIBER ATTRITION;
 FIBER CONTENT; FIBER ORIENTATION; GLASS FIBER-REINFORCED PLASTIC;
 POLYPHENYLENE SULFIDE; SHORT FIBER; SYNTHETIC FIBER-REINFORCED PLASTIC;
 PET

NPT MOLYBDENUM DISULPHIDE; STEEL; MOLYBDENUM DISULFIDE
 SHR COMPOSITES, wear, abrasion resistance; REINFORCED PLASTICS, wear, abrasion
 resistance; REINFORCED THERMOPLASTICS, wear, abrasion resistance; ABRASION
 RESISTANCE, composites, reinforced plastics, reinforced thermoplastics;
 WEAR, reinforced plastics, reinforced thermoplastics, composites

GT USA

L192 ANSWER 10 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
 AN R:510110 RAPRA FS Rapra Abstracts
 TI DOMESTIC ELECTRICAL APPLIANCES: CHANGES IN CONTINUITY.
 AU Desfilhes P
 SO Plastiques Modernes et Elastomeres 46, No.1, Jan/Feb.1994, p.42-5
 ISSN: 0032-1303
 CODEN: PMELAW
 PY 1994
 DT Journal
 LA French
 AB Applications of commodity and engineering plastics in domestic appliances
 are examined. Polymer developments by a number of companies are reviewed.
 CC 6D15
 SC *QE

L192 ANSWER 11 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
 AN R:475037 RAPRA FS Rapra Abstracts
 TI DSM: PRODUCER OF MATERIALS, EXPERT IN COMPOUNDS.
 SO Plastiques Flash 27, No.253, June/July 1992, p.34-6
 ISSN: 0180-9237
 PY 1992
 DT Journal
 LA French
 AB A survey is made of the range of engineering plastics produced by DSM,
 including certain grades previously manufactured by Akzo. Particular
 attention is paid to the properties and applications of Staprion S
 rubber-modified styrene-maleic anhydride copolymer, Ronfaly P
 ABS/PETP blends and Staprion E polycarbonate/PETP blends.
 CC 42C21C3421; 42C21C391D11; 43C112; 43C12; 6125
 SC *KD; KQ; OD
 CT ABS; AUTOMOTIVE APPLICATION; BLEND; CAPACITY; CAR; COMMERCIAL
 INFORMATION; COMPANY; COMPOSITE; COMPOUND; DATA; ELECTRICAL APPLICATION;
 ENGINEERING APPLICATION; ENGINEERING PLASTIC; EPDM; ETHYLENE-PROPYLENE-
 DIENE TERPOLYMER; EXTRUSION; FLAMMABILITY; FORMING; GAS INJECTION
 MOULDING; HEAT RESISTANCE; HOLLOW GAS INJECTION MOULDING; INJECTION

MOULD; INSERT MOULD; MECHANICAL PROPERTIES; **NYLON 4,6;**
NYLON 6; **NYLON 66;** PBTP; PETP; PLANT; PLANT CAPACITY;
 PLASTIC; POLYAMIDE; POLYAMIDE-4,6; POLYAMIDE-6; POLYAMIDE-6,6;
 POLYBUTYLENE TEREPHTHALATE; **POLYCARBONATE;** POLYETHYLENE
 TEREPHTHALATE; POLYPROPYLENE; PP; PRODUCTION CAPACITY; RECYCLING;
 REINFORCED PLASTIC; REINFORCED THERMOPLASTIC; RUBBER; RUBBER-MODIFIED;
 SATURATED POLYESTER; SCRAP; SELF-EXTINGUISHING; **STYRENE-MALEIC
 ANHYDRIDE COPOLYMER;** TECHNICAL; THERMAL STABILITY; THERMOFORM;
 THERMOPLASTIC; THERMOSET; TRADE NAME; WASTE; GAS INJECTION MOLDING;
 HOLLOW GAS INJECTION MOLDING; INJECTION MOLD; INSERT MOLD; PET
 ENGINEERING PLASTICS; STYRENE **MALEIC ANHYDRIDE COPOLYMERS;**
 ACRYLONITRILE **BUTADIENE STYRENE** TERPOLYMERS,blends;
 ETHYLENE TEREPHTHALATE POLYMERS,blends; CARBONATE POLYMERS,blends;
 BLENDS,ABS,PETP,carbonate polymers

SHR DSM; AKZO BV
 GT EUROPEAN COMMUNITY; NETHERLANDS; WESTERN EUROPE
 TN NYRIM; STAMYLAN; KELTAN TP; KELBURON; RONFALIN; STAPRON C; STANYL;
 XANTAR; AKULON; ARNITE; STAPRON S; RONFALOY P; STAPRON E; CINPRES;
 STAPRON N; STAMYLAN P

L192 ANSWER 12 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
 AN R:469987 RAPRA FS Rapra Abstracts
 TI DSM FRANCE: A REASONED OPTIMISM.
 AU Forest J P
 SO Revue Generale des Caoutchoucs et Plastiques 69,No.716,Sept.1992,p.48-51
 CODEN: RCPLA5
 PY 1992
 DT Journal
 LA French
 AB The activities of DSM in the production of PE, PP, engineering plastics,
 EPDM, thermoplastic elastomers and Dyneema PE fibres and in plastics
 recycling are reviewed.
 CC 06
 SC *CB
 CT ABS; ADDITIVE; AUTOMOTIVE APPLICATION; BLEND; BOTTLE; BUMPER;
 BUTADIENE-ACRYLONITRILE COPOLYMER; **BUTADIENE-STYRENE COPOLYMER;**
 CAPACITY; CAR; COMMERCIAL INFORMATION; COMPANY; COMPATIBILISER; COMPOUND;
 DATA; ENGINEERING APPLICATION; ENGINEERING PLASTIC; EPDM; ETHER-AMIDE
 BLOCK COPOLYMER; ETHYLENE POLYMER; ETHYLENE-PROPYLENE-DIENE TERPOLYMER;
 FIBRE; FILM; FINANCE; FLAMMABILITY; GRAPH; HALOGEN-FREE; HDPE; HIGH
 DENSITY POLYETHYLENE; IMPACT MODIFIER; IMPACT STRENGTH; INVESTMENT; LDPE;
 LINEAR LOW; LOW DENSITY POLYETHYLENE; **MALEIC ANHYDRIDE COPOLYMER**
 ; MASTERBATCH; MECHANICAL PROPERTIES; METALLISING; NITRILE RUBBER;
NYLON 4,6; **NYLON 6;** **NYLON 66;** PACKAGING;
 PACKAGING FILM; PBTP; PE; PETP; PLANT; PLANT CAPACITY; PLASTIC;
 POLYAMIDE; POLYAMIDE-4,6; POLYAMIDE-6; POLYAMIDE-6,6; POLYBUTYLENE
 TEREPHTHALATE; **POLYCARBONATE;** POLYESTER ELASTOMER; POLYETHER
 ELASTOMER; POLYETHYLENE; POLYETHYLENE TEREPHTHALATE; POLYMERIC IMPACT
 MODIFIER; POLYPROPYLENE; POWDER; PP; PRODUCTION CAPACITY; PROPYLENE
 COPOLYMER; QUALITY CONTROL; RECLAIM; RECYCLING; RESEARCH; RUBBER;
 RUBBER-MODIFIED; SBR; STYRENE COPOLYMER; SURFACE TREATMENT; TECHNICAL;
 THERMOPLASTIC; THERMOPLASTIC ELASTOMER; TRADE NAME; WASTE;
 COMPATIBILIZER; FIBER; PET

NPT DIAMINOBUTANE; MONOMER
 SHR COMPANY INFORMATION,DSM
 CO DSM FRANCE; DSM; NOVACOR CHEMICALS LTD.; REKO BV; RE-TECH BV; JAPAN
 SYNTHETIC RUBBER CO.LTD.; AKZO BV
 GT CANADA; EUROPEAN COMMUNITY; FRANCE; JAPAN; NETHERLANDS; WESTERN EUROPE

TN SARLINK; DYNEEMA; STANYL; XANTAR; FANTASY COLOURS

L192 ANSWER 13 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN

AN R:461888 RAPRA FS Rapra Abstracts

TI MULTIPOLYMERS AND MULTI-LAYERS.

AU Fuzessery S (MAACK BUSINESS SERVICES)

SO Macplas 17, No.139, June 1992, p.109-10

ISSN: 0394-3453

PY 1992

DT Journal

LA Italian

AB Property modification of thermoplastics by blending with other polymers is discussed, and the use of compatibilisers and coupling agents in polymer blends is examined.

CC 6125; 59

SC *OD; MJ

CT ABS; ACRYLAMIDE POLYMER; ACRYLIC ELASTOMER; ADDITIVE; ADHESION; BLEND; BLOCK COPOLYMER; COMPANIES; COMPANY; COMPATIBILISER; COMPOSITE; COUPLING AGENT; CRYSTALLISATION; DATA; DIMENSIONAL STABILITY; ENGINEERING APPLICATION; ENGINEERING PLASTIC; EPDM; EPM; ETHYL ACRYLATE COPOLYMER; ETHYLENE COPOLYMER; ETHYLENE-PROPYLENE COPOLYMER; ETHYLENE-PROPYLENE-DIENE TERPOLYMER; FIBRE; FILM; GLASS FIBRE-REINFORCED PLASTIC; GLASS TRANSITION TEMPERATURE; GRAPH; GRP; HEAT RESISTANCE; IMPACT MODIFIER; IMPACT PROPERTIES; IMPACT STRENGTH; INJECTION MOULD; INTERFACIAL ADHESION; IONOMER; K VALUE; LAMINATED FILM; **MALEIC ANHYDRIDE COPOLYMER**; MECHANICAL PROPERTIES; MORPHOLOGICAL PROPERTIES; MULTI-LAYER; **NYLON 6**; PBTP; PERMEABILITY; PETP; PLASTIC; POLYACRYLAMIDE; POLYAMIDE; POLYAMIDE-6; POLYBUTYLENE TEREPHTHALATE; **POLYCARBONATE**; POLYETHYLENE TEREPHTHALATE; POLYMERIC COUPLING AGENT; POLYMERIC IMPACT MODIFIER; POLYMERIC PROPERTY MODIFIER; POLYPROPYLENE; POLYVINYL CHLORIDE; PP; PROPERTY MODIFIER; PROPYLENE POLYMER; PVC; RECYCLING; REINFORCED PLASTIC; RUBBER; RUBBER-MODIFIED; SILANE POLYMER; SOFTENING POINT; STYRENE COPOLYMER; **STYRENE-BUTADIENE-STYRENE BLOCK COPOLYMER**; STYRENE-ETHYLENE BUTYLENE-STYRENE BLOCK COPOLYMER; TECHNICAL; TG; THERMAL PROPERTIES; THERMAL STABILITY; THERMOPLASTIC; THERMOPLASTIC ELASTOMER; VINYL CHLORIDE POLYMER; COMPATIBILIZER; CRYSTALLIZATION; FIBER; GLASS FIBER-REINFORCED PLASTIC; INJECTION MOLD; PET

NPT SILANE; TITANATE

SHR BLENDS, plastics, rubber; PROPERTY MODIFIERS

GT SWITZERLAND; WESTERN EUROPE

L192 ANSWER 14 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN

AN R:384781 RAPRA FS Rapra Abstracts

TI GEP BOOSTS **POLYMER BLEND** RANGE.

SO Modern Plastics International 19, No.7, July 1989, p.10/2

ISSN: 0026-8283

CODEN: MOPLAY

PY 1989

DT Journal

LA English

AB New polymer blends from GE Plastics are described. Cycoloy 1000 and 2000 are **polycarbonate**/ABS blends, Cycoloy 3000 is a glass reinforced **polycarbonate**/ABS blend and Cycoloy 4000 is a flame retardant GRP. Xenoy EPX 500 is a **polycarbonate**/PETP blend, Noryl Xtra HH 195 is a blend of polyphenylene oxide and polystyrene with high heat resistance, whilst Noryl Xtra LS shows low smoke formation when ignited.

CC 06; 43C12; 6125; 42C21C39D11; 43C52; 43C112; 42C21
SC *OD; KQ; KN; KF; KS
CT ABS; AUTOMOTIVE APPLICATION; AUTOMOBILE; BLEND; BODY PANEL; BODY PANELS;
BUMPER; BUSINESS MACHINE; CABLE; CHEMICAL RESISTANCE; COLOUR; COMPANY;
COMPANIES; CONDUIT; DATA; DOMESTIC EQUIPMENT; DUCT; DUCTILITY; DUCTILE;
ELECTRONIC APPLICATION; EPOXY RESIN; FLAME RETARDANT; FLOW; HEAT
DEFLECTION TEMPERATURE; HEAT DISTORTION TEMPERATURE; IGNITION SYSTEM;
IMPACT STRENGTH; IMPACT PROPERTIES; LIGHTING APPLICATION; LOW TEMPERATURE
PROPERTIES; LOW-TEMPERATURE PROPERTIES; NYLON;
POLYAMIDE; PAINTING; PBTP; POLYBUTYLENE TEREPHTHALATE; PLASTIC;
PLATE-OUT; **POLYCARBONATE**; POLYPHENYLENE OXIDE; PHENYLENE OXIDE
POLYMER; POWDER COATING; PRODUCT ANNOUNCEMENT; PS; STYRENE POLYMER; SMOKE
DENSITY; OPTICAL DENSITY; STABILITY; TECHNICAL; THERMOPLASTIC; COLOR
SHR COMPANY INFORMATION, GE Plastics,blends; BLENDS, carbonate
polymers, **ABS**, PETP, phenylene oxide polymers, PS;
REINFORCED PLASTICS, blends, carbonate **polymers**, **ABS**;
COMPOSITES, blends, carbonate **polymers**, **ABS**
CO BAYER AG; BORG-WARNER CHEMICALS INC.; DOW CHEMICAL CO.; GE PLASTICS
GT NETHERLANDS; USA

L192 ANSWER 15 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
AN R:379633 RAPRA FS Rapra Abstracts
TI ABS MAKERS BID FOR WORLD MARKETS.
AU Lipold J
SO Chemical Marketing Reporter 236, No.2, 10th July 1989, p.3/28
ISSN: 0090-0907
CODEN: CMKRA5
PY 1989
DT Journal
LA English
AB An article is presented on the continued growth of the ABS resin market.
GE Plastics are expanding in Mexico and Japan, Monsanto is stepping up
operations in Japan and Mexico, and Dow is expanding in the Netherlands
and the US; capacity figures are given. GE and Dow have announced
expansions in their product lines, Dow with additions to its high-heat
ABS with two new grades for automotive interiors, Magnum 344 HP and 357
HP, and GE is marketing four new Cycolac grades for automotive and
general domestic applications.

L192 ANSWER 16 OF 16 RAPRA COPYRIGHT 2004 RAPRA on STN
AN R:367817 RAPRA FS Rapra Abstracts
TI **POLYMER BLENDS: FILLED, REINFORCED, RUBBERISED. PART**
II.
AU Domininghaus H
SO Gummi Fasern Kunststoffe 41, No.11, Nov. 1988, p.568-70
PY 1988
DT Journal
LA German
AB The paper is concluded by describing **Polyamide** blends with
polyolefins, elastomers, long-fibre plastics and styrene polymers. Blends
of **POLYCARBONATE** with **ABS** and PBTP, and blends of
polyphenylene ether with polystyrene and **POLYAMIDE** are
described more briefly. The conclusion shows in diagrammatical form how
blends of general purpose polymers and special polymers stand in respect
to their constituents. (ibid, Pt.I, Sept. 1988). 6 refs.
CC 6125
SC *OD; QA; UA

CT **ABS; ACRYLONITRILE-STYRENE-ACRYLATE TERPOLYMER; APPLICATION; AUTOMOTIVE APPLICATION; AUTOMOBILE; BLEND; BR; BUTADIENE POLYMER; CFRP; CARBON FIBRE-REINFORCED PLASTIC; CHEMICAL RESISTANCE; COMPANY; COMPANIES; COMPOSITE; COUPLING; DATA; ELASTIC MODULUS; YOUNG'S MODULUS; ENGINEERING APPLICATION; EPDM; ETHYLENE-PROPYLENE-DIENE TERPOLYMER; EPM; ETHYLENE-PROPYLENE COPOLYMER; EVA; ETHYLENE-VINYL ACETATE COPOLYMER; FIBRE-REINFORCED PLASTIC; REINFORCED PLASTIC; FIBROUS FILLER; FILLER; FLEXURAL MODULUS; FLEXURAL PROPERTIES; FUEL RESISTANCE; GEAR WHEEL; GRP; GLASS FIBRE-REINFORCED PLASTIC; HELMET; HOUSING; CASING; IMPACT STRENGTH; IMPACT PROPERTIES; LONG FIBRE; NBR; BUTADIENE-ACRYLONITRILE COPOLYMER; NYLON 6; POLYAMIDE-6; NYLON 6,6; POLYAMIDE-6,6; PBTP; POLYBUTYLENE TEREPHTHALATE; PE; ETHYLENE POLYMER; PETP; POLYETHYLENE TEREPHTHALATE; POLYAMIDE; POLYCARBONATE; POLYPHENYLENE ETHER; PHENYLENE OXIDE POLYMER; PS; STYRENE POLYMER; PULTRUSION; REINFORCED PLASTIC; REVIEW; ROLLER SKATE; RUBBER; SBR; BUTADIENE-STYRENE COPOLYMER; SPORTS GOODS; SPORTS EQUIPMENT; STIFFNESS; FLEXURAL PROPERTIES; TECHNICAL; THERMOPLASTIC; TS; TENSILE PROPERTIES; WATER ABSORPTION; CARBON FIBER-REINFORCED PLASTIC; FIBER-REINFORCED PLASTIC; GLASS FIBER-REINFORCED PLASTIC; LONG FIBER; PET**

NPT ALUMINIUM SILICATE; CALCIUM CARBONATE; CALCIUM SILICATE; KAOLIN; MAGNESIUM SILICATE; MICA; QUARTZ; SILICA; TALC; WOLLASTONITE; CALCIUM SILICATE; ALUMINUM SILICATE

SHR BLENDS, amide polymers, carbonate polymers, phenylene ethers polymers; AMIDE POLYMERS, blends; CARBONATE POLYMERS, blends; PHENYLENE OXIDE POLYMERS, blends

CO BAYER AG; GE PLASTICS

GT WEST GERMANY

TN NORYL GTX

=> FILE WPIX

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FILE LAST UPDATED: 24 JUN 2004 <20040624/UP>
MOST RECENT DERWENT UPDATE: 200440 <200440/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

=> D L211 1-9 TI

L211 ANSWER 1 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
TI Flame retardant thermoplastic **resin composition** for preparation of e.g. electronic instrument parts, comprises thermoplastic **resin**, flame retardant, heavy oil or pitch and reinforcing material.

L211 ANSWER 2 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
TI Thermoplastic **resin composition** comprising thermoplastic **resin**, inorganic fibrous filler and liquid crystal **polymer**, useful as molding material for preparation of light-gage moldings..

L211 ANSWER 3 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

TI Surface modifying **carbon fibre** with excellent
dispersive property - by treating **carbon fibre**
with **dispersion** of organic **polymer** micro-particles,
for reinforcing fibre..

L211 ANSWER 4 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
TI Thermoplastic **resin compsn.** which generates reduced
amount of sulphur oxide gas - contains thermoplastic **resin** e.g.
polyester, polystyrene and polyphenylene ether , polyamide and
electroconductive carbon black.

L211 ANSWER 5 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
TI Vibration damping fibre reinforced **resin compsn.** for
compression moulding - comprises thermoplastic **resin** matrix and
reinforcing fibres, with specified loss factor and flexural modulus.

L211 ANSWER 6 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
TI UV light absorbing **resin compsn.** with resistance to
discolouration - containing phenol or epoxy **resin** mixed with zinc
oxide **whiskers**.

L211 ANSWER 7 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
TI Sizing agent for **carbon fibre** - contains bisphenol-A
epoxy **resin** and is used in conjunction with thermoplastic
resin composite to produce **carbon**
fibre reinforced material.

L211 ANSWER 8 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
TI Moulding **resin compsn.** which can be recycled or
remoulded - comprises thermoplastic matrix **resin**, and liquid
crystal **resin** reinforcing material.

L211 ANSWER 9 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
TI **Resin compsn.** for sliding part material, with good
sliding properties - has **resins** e.g. polyethylene, chlorinated
polyolefin, polystyrene, **nylon**, etc., containing **carbon**
fibre.

Kat, the first 2 records have priority dates > 1999.

=> D 1211 1-9 ALL

L211 ANSWER 1 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2002-640921 [69] WPIX
DNC C2002-180725
TI Flame retardant thermoplastic **resin composition** for
preparation of e.g. electronic instrument parts, comprises thermoplastic
resin, flame retardant, heavy oil or pitch and reinforcing
material.
DC A28 A84 A95
PA (KANF) KANEKA CORP
CYC 1
PI JP 2002241595 A 20020828 (200269)* 11 C08L067-00
ADT JP 2002241595 A JP 2001-44227 20010220
PRAI JP 2001-44227 20010220

IC ICM C08L067-00
ICS C08K003-00; C08L071-12; C08L077-00; C09K021-14
AB JP2002241595 A UPAB: 20021026
NOVELTY - A flame retardant thermoplastic **resin** composition(I) comprises (parts by weight):
(A) thermoplastic **resin** composition (100);
(B) flame retardant (0.1-40);
(C) (1) heavy oil or pitch or (2) condensed polynuclear aromatic **resin** (0.5-40); and
(D) reinforcing material (200).
DETAILED DESCRIPTION - A flame retardant thermoplastic **resin** composition(I) comprises (parts by weight):
(A) thermoplastic **resin** composition (100);
(B) flame retardant (0.1-40);
(C) (1) heavy oil or pitch or (2) condensed polynuclear aromatic **resin** (0.5-40); and
(D) reinforcing material (200).
(A) is composed of one or more of (A1) thermoplastic polyester **resin**, (A2) polyphenylene ether **resin** or (A3) thermoplastic polyamide **resin** 50 wt% or more. (B) is **polymer** composed of (B1) backbone containing silicon-oxygen bonds and boron-oxygen bonds and (B2) aromatic residue.
USE - (I) is useful as material for preparation of e.g. automotive parts, parts of domestic appliances or office automation instruments.
ADVANTAGE - (I) has good flame retardancy, (I) does not contain halogen compound and phosphorus compound.

Dwg.0/0

FS CPI
FA AB
MC CPI: A08-F01; A12-E01

L211 ANSWER 2 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2002-209187 [27] WPIX
DNN N2002-159602 DNC C2002-063861
TI Thermoplastic **resin** composition comprising thermoplastic **resin**, inorganic fibrous filler and liquid crystal **polymer**, useful as molding material for preparation of light-gage moldings..
DC A28 A85 L03 U11
PA (DAIL) DAICEI CHEM IND LTD
CYC 1
PI JP 2001181516 A 20010703 (200227)* 6 C08L101-00
ADT JP 2001181516 A JP 1999-369403 19991227
PRAI JP 1999-369403 19991227
IC ICM C08L101-00
ICS C08J005-00; C08K003-04; C08K007-04; C08L023-00; C08L025-04;
C08L051-04; C08L067-00; C08L069-00; C08L077-00; C23C028-00
AB JP2001181516 A UPAB: 20020429
NOVELTY - A thermoplastic **resin** composition (I) characterized by MI 1-500 g/10 min and flexural modulus 6,000-50,000 MPa comprising (A) thermoplastic **resin**, (B) inorganic fibrous filler and (C) liquid crystal **polymer** is claimed.
USE - (I) is useful as molding material for preparation of light-gage moldings, e.g. parts and/or housings of electrical and electronic instruments, trays etc. Moldings of (I) are claimed, also.
ADVANTAGE - (I) has good moldability, gives molded articles having good rigidity and impact resistance. (I) is platable plastic(claimed).
Dwg.0/0

FS CPI EPI
FA AB
MC CPI: A04-C03; A05-E06A; A05-F01B2; A08-R01; A12-E01; L03-D05A
EPI: U11-A03A; U11-A07

L211 ANSWER 3 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1995-102349 [14] WPIX
DNC C1995-047112
TI Surface modifying **carbon fibre** with excellent
dispersive property - by treating **carbon fibre**
with **dispersion** of organic **polymer** micro-particles,
for reinforcing fibre..
DC A60 A87 F06 L02
PA (MITR) MITSUBISHI RAYON CO LTD
CYC 1
PI JP 07026469 A 19950127 (199514)* 3 D06M015-19
JP 3232169 B2 20011126 (200201) 3 D06M015-333
ADT JP 07026469 A JP 1993-193825 19930712; JP 3232169 B2 JP 1993-193825
19930712

FDT JP 3232169 B2 Previous Publ. JP 07026469

PRAI JP 1993-193825 19930712

IC ICM D06M015-19; D06M015-333

ICS D06M013-256; D06M023-08

ICI D06M101:40

AB JP 07026469 A UPAB: 19950412

Surface modifying **carbon fibre** comprises treating a
carbon fibre having less than 0.10 of OIS/CIS peak ratio
measured by ESCA method with a dispersion of organic **polymer**
micro-particles having less than minus 30 mV of Zeta potential of
dispersed particle.

The dispersion is prepared by dispersing the organic **polymer**
micro-particle into water with anionic surfactant. The **carbon**
fibre is pref. PAN based **carbon fibre** of high
strength and for general purpose fibre. The shape may be any of short
fibre, long fibre, strand, sheet, nonwoven fabric, woven fabric.

USE/ADVANTAGE - The surface modified **carbon fibre**
is used for reinforcing fibre of fibre reinforced thermoplastic
resin, e.g., **nylon**, **polycarbonate**, **ABS**
resin as matrix, and composite material comprising organic matrix,
e.g., thermosetting **resin**, rubber and inorganic matrix, e.g.,
clay, cement, concrete. The surface modified **carbon**
fibre has excellent dispersive property in the matrix, and
affinity and adhesive property with matrix compared with conventional
material.

Dwg.0/0

FS CPI
FA AB
MC CPI: A08-M01B; A08-R03A; A12-S05E; A12-S08C; F01-H06B; F03-D; L02-H04A;
L02-J

L211 ANSWER 4 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1993-278426 [35] WPIX
DNN N1993-214003 DNC C1993-124277
TI Thermoplastic **resin** compsn. which generates reduced
amount of sulphur oxide gas - contains thermoplastic **resin** e.g.
polyester, polystyrene and polyphenylene ether, polyamide and
electroconductive carbon black.
DC A18 A28 A85 L03 X12

PA (MITK) MITSUI TOATSU CHEM INC
 CYC 1
 PI JP 05194863 A 19930803 (199335)* 6 C08L101-00
 ADT JP 05194863 A JP 1992-165939 19920624
 PRAI JP 1991-158107 19910628
 IC ICM C08L101-00
 ICS C08K003-04; C08L025-04; C08L071-12; H01B001-24
 ICI C08L101-00
 AB JP 05194863 A UPAB: 19931119
 The thermoplastic **resin** compsn. contains 100 pts. weight of (A) thermoplastic **resin**, 0.01 to 5, pref. 0.1 to 3 pts. weight of (B) polyamide **resin** and 0.1 to 30 pts. weight of (C) electroconductive carbon. (A) includes aromatic polyester **resin**, styrene **polymer**, polypropylene, polyethylene, polyether sulphone, polyphenylene sulphide, polyallylsulphone, polyphenylenesulphone, polysulphone, polyphenylene ether, polyarylate, polyacetal, polyetherimide, aromatic **polycarbonate**, etc. and pref. are polyphenylene ether **resin**, especially poly(2,6-dimethyl 1,4-phenylene) ether and its blend with styrene **resin** such as styrene **homopolymer** and **copolymer**, AS **resin**, HIPS **resin** and ABS **resin**. (B) includes aliphatic nylon such as nylon, 6, 66, 46 and 610, aromatic nylon, polyamide-imide **resin**, etc.. (C) includes acetylene black, furnace black, **fibrous carbon**, etc..
 ADVNTAGE - The compsn. generates a reduced amount. of S oxide gas when heated at high temperature. Useful for electric and electronic parts.
 Dwg.0/0
 FS CPI EPI
 FA AB
 MC CPI: A05-F01B2; A07-A03C; A07-A04E; A08-M09A; A08-R03; A09-A03; L03-A02E
 EPI: X12-D01X

L211 ANSWER 5 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
 AN 1993-208901 [26] WPIX
 DNC C1993-092720
 TI Vibration damping fibre reinforced **resin** compsn. for compression moulding - comprises thermoplastic **resin** matrix and reinforcing fibres, with specified loss factor and flexural modulus.
 DC A12 A17 A88
 PA (BRID) BRIDGESTONE CORP
 CYC 1
 PI JP 05132573 A 19930528 (199326)* 4 C08J005-24
 ADT JP 05132573 A JP 1991-297155 19911113
 PRAI JP 1991-297155 19911113
 IC ICM C08J005-24
 ICS B29B011-16; B29B015-10
 ICA B29C043-16
 ICI B29K009:00, B29K031:00, B29K105:06, B29L007:00
 AB JP 05132573 A UPAB: 19931118
 The **resin** compsn. contains 5-70 volume% of reinforcement fibres with length at least 5 mm in matrix **resin**, and having loss factor at 20 deg.C, 250 Hz at least 0.6 and flexural modulus at least 15000 kg/cm².
 Pref. the matrix **resin** is thermoplastic **resin** containing at least ethylene-vinyl acetate **copolymer resin** with vinyl acetate content 50-90 weight%, polybutene-1 and 1,2-polybutadiene.
 The reinforcement fibre is inorganic **fibre** (glass **fibre**, carbon **fibre**, etc.) organic fibre

(polyester fibre, polyamide fibre, etc.) a metallic fibre (stainless steel fibre, copper fibre, nickel fibre, etc.). The reinforcement film has dia. 5-50 microns. The thermoplastic **resin** is blended with polyester type **resin** (e.g. polyethylene, polypropylene, polystyrene, etc.), polyamide (e.g. **nylon** 6, **nylon** 66, etc.) polyphenylene oxide, **polycarbonate**, polyol **resin**, **ABS resin**, etc.

USE/ADVANTAGE - Used as light weight structural material for noise reduction, for internal combustion engines, tools, power tools, motors, gears, etc., because it has great internal loss, high modulus of elasticity, and good mechanical properties

Dwg.0/0

FS CPI

FA AB

MC CPI: A08-R01; A11-B11; A12-H09; A12-S08D1

L211 ANSWER 6 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1993-137095 [17] WPIX

DNC C1993-061225

TI UV light absorbing **resin compsn.** with resistance to discolouration - containing phenol or epoxy **resin** mixed with zinc oxide **whiskers**.

DC A13 A17 A21 A23 E32

PA (MATU) MATSUSHITA ELEC IND CO LTD

CYC 1

PI JP 05070626 A 19930323 (199317)* 5 C08K007-08

ADT JP 05070626 A JP 1991-118485 19910523

PRAI JP 1991-118485 19910523

IC ICM C08K007-08

ICS C08K003-22; C08L101-00

AB JP 05070626 A UPAB: 19931116

The compsn. contains more than 1 weight% of ZnO **whiskers**. The loadings of the **whisker** are 10-50 weight%. The **whisker** has a nucleus and needles, having a dia. of 0.2-5 microns at the base and a length of 3-200 microns. The **resin** is a crystalline thermoplastic **resin** such as polyethylene, polypropylene, polybutylene terephthalate, polyacetal and polyamide. The **resin** is a non-crystalline thermoplastic **resin** such as polystyrene, **ABS resin** and **polycarbonate**. The **resin** is a thermosetting **resin** such as phenolic **resin** or epoxy **resin**.

ADVANTAGE - The **resin compsn.** has high UV light absorbing power and a high resistance to decolouration and degration by UV light.

In an example, a **resin compsn.** comprising 100 pts. weight of **nylon** 66 and 30 pts. weight of ZnO **whisker** was subjected to a spectral reflection test and a UV radiation test. The **resin compsn.** gave no discolourations after UV radiation test for 500 hrs

Dwg.0/2

FS CPI

FA AB; DCN

MC CPI: A08-M09C; A08-R09; A09-A02; E35-C

L211 ANSWER 7 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1993-113194 [14] WPIX

DNC C1993-050463

TI Sizing agent for **carbon fibre** - contains bisphenol-A epoxy **resin** and is used in conjunction with thermoplastic **resin composite** to produce **carbon**

fibre reinforced material.

DC A32 F06 L02
 PA (MITR) MITSUBISHI RAYON CO LTD
 CYC 1
 PI JP 05051871 A 19930302 (199314)* 4 D06M015-55
 ADT JP 05051871 A JP 1991-205870 19910816
 PRAI JP 1991-205870 19910816
 IC ICM D06M015-55
 ICS C08J005-06; D01F011-14
 ICI D06M101:40
 AB JP 05051871 A UPAB: 19931115

A sizing agent for **carbon fibre** contains more than 10 % of bisphenol A type epoxy **resin** with ratio of epoxy equivalent to solid matter of more than 10000.

A thermoplastic **resin** composite material reinforced with the **carbon fibre** sized above sizing agent is also claimed.

The sizing agent pref. further contains more than 10 % of bisphenol A type epoxy **resin** with less than 2000 of epoxy equivalent to improve close adherence of the **carbon fibre** among themselves. The thermoplastic **resin** includes a **resin** containing **polycarbonate**, **ABS** or **nylon** as main component. The sizing agent is pref. adhered by 0.5-10 %, more pref. 2-4 % to the **carbon fibre**. USE/ADVANTAGE - The sizing agent for **carbon fibre** is useful for sizing of **carbon fibre** used in a **carbon** short **fibre** reinforced thermoplastic **resin** composite material. Since the sizing agent can sufficiently converge **carbon fibres**, fuzzing of **carbon fibre** is controlled, and since sufficient fluidity is imparted in moulding when blending with **resin**, composite performance after moulding is improved. Used in blending **resin** pellets and chopped **carbon fibre**

Dwg.0/0

FS CPI
 FA AB
 MC CPI: A05-A02; A12-G; A12-S08C; F01-D09A; F01-H06A; F03-D; L02-H04A

L211 ANSWER 8 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1993-110969 [14] WPIX

CR 1993-028733 [04]

DNC C1993-048795

TI Moulding **resin** compsn. which can be recycled or remoulded - comprises thermoplastic matrix **resin**, and liquid crystal **resin** reinforcing material.

DC A23 A32

IN KANEKO, M; MATSUDA, Y; OHSUGI, M; SASAKI, K; SHINOMORI, M; TOMITA, T
 PA (MAZD) MAZDA MOTOR CORP

CYC 4

PI EP 535650 A2 19930407 (199314)* EN 36 B29C067-24
 R: DE FR GB
 JP 05086234 A 19930406 (199318) 10 C08L023-10
 JP 05086257 A 19930406 (199318) 10 C08L055-02
 JP 05086258 A 19930406 (199318) 10 C08L055-02
 JP 05086268 A 19930406 (199318) 10 C08L067-00
 JP 05086273 A 19930406 (199318) 10 C08L067-02
 JP 05086282 A 19930406 (199318) 10 C08L071-12
 JP 05086286 A 19930406 (199318) 10 C08L077-00

JP 05086288 A 19930406 (199318) 10 C08L077-12
 JP 05112709 A 19930507 (199323) 10 C08L069-00
 EP 535650 A3 19930630 (199405) B29C067-24
 JP 3115655 B2 20001211 (200101) 10 C08J005-00
 JP 3119508 B2 20001225 (200102) 10 C08L069-00
 JP 3124587 B2 20010115 (200106) 10 C08L067-02
 JP 3159741 B2 20010423 (200125) 10 C08L071-12
 JP 3162124 B2 20010425 (200126) 10 B29B017-00
 JP 3217091 B2 20011009 (200164) 10 C08L077-12
 JP 3217092 B2 20011009 (200164) 10 C08L077-00
 JP 3224136 B2 20011029 (200171) 10 C08L055-02
 JP 3224137 B2 20011029 (200171) 10 C08L055-02
 ADT EP 535650 A2 EP 1992-116771 19920930; JP 05086234 A JP 1991-252209 19910930; JP 05086257 A JP 1991-252193 19910930; JP 05086258 A JP 1991-252392 19910930; JP 05086268 A JP 1991-252205 19910930; JP 05086273 A JP 1991-252368 19910930; JP 05086282 A JP 1991-252383 19910930; JP 05086286 A JP 1991-252385 19910930; JP 05086288 A JP 1991-252201 19910930; JP 05112709 A JP 1991-252210 19910930; EP 535650 A3 EP 1992-116771 19920930; JP 3115655 B2 JP 1991-252205 19910930; JP 3119508 B2 JP 1991-252210 19910930; JP 3124587 B2 JP 1991-252368 19910930; JP 3159741 B2 JP 1991-252383 19910930; JP 3162124 B2 JP 1991-252209 19910930; JP 3217091 B2 JP 1991-252201 19910930; JP 3217092 B2 JP 1991-252385 19910930; JP 3224136 B2 JP 1991-252193 19910930; JP 3224137 B2 JP 1991-252392 19910930
 FDT JP 3115655 B2 Previous Publ. JP 05086268; JP 3119508 B2 Previous Publ. JP 05112709; JP 3124587 B2 Previous Publ. JP 05086273; JP 3159741 B2 Previous Publ. JP 05086282; JP 3162124 B2 Previous Publ. JP 05086234; JP 3217091 B2 Previous Publ. JP 05086288; JP 3217092 B2 Previous Publ. JP 05086286; JP 3224136 B2 Previous Publ. JP 05086257; JP 3224137 B2 Previous Publ. JP 05086258
 PRAI JP 1991-252193 19910930; JP 1991-252201 19910930;
 JP 1991-252205 19910930; JP 1991-252209 19910930;
 JP 1991-252210 19910930; JP 1991-252211 19910930;
 JP 1991-252368 19910930; JP 1991-252383 19910930;
 JP 1991-252385 19910930; JP 1991-252392 19910930
 REP No-SR.Pub; 4.Jnl.Ref; EP 340655; EP 524655; GB 2078240
 IC ICM B29B017-00; B29C067-24; C08J005-00; C08L023-10; C08L055-02;
 C08L067-00; C08L067-02; C08L069-00; C08L071-12; C08L077-00;
 C08L077-12
 ICS B29B011-14
 AB EP 535650 A UPAB: 20011203
 The compsn. comprises a matrix **resin** formed from a thermoplastic **resin** and a reinforcing material formed from a LC **resin** having a higher m.pt. than the thermoplastic **resin**. The amount of LC **resin** formulated into the thermoplastic **resin** is within a filterisable area and less than a phase-reversing concentration. A remouldable **resin** compsn. comprising at least two sorts of ground moulded articles of the above **resin** compsn. is also claimed, pref. further comprising a thermoplastic **resin** and/or a LC **resin** capable of mixing with the matrix **resin**. Pref. the LC **resin** has an aspect ratio of 3 or more. The **resin** compsn. pref. comprises (a) a ground moulded article of the **resin** compsn. comprising a matrix **resin**, and (b) a thermoplastic and/or LC **resin** capable of mixing with the matrix **resin**. ADVANTAGE - The compsn. can be recycled or remoulded and when remoulded keeps excellent strength and stiffness.
 0/21
 FS CPI

FA AB
MC CPI: A09-A02A; A11-C03

L211 ANSWER 9 OF 9 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1991-372780 [51] WPIX
DNC C1991-160849
TI **Resin compsn.** for sliding part material, with good
sliding properties - has **resins** e.g. polyethylene, chlorinated
polyolefin, polystyrene, **nylon**, etc., containing **carbon**
fibre.
DC A18 A28 A88
PA (ASAHI) ASAHI CHEM IND CO LTD
CYC 1
PI JP 03250093 A 19911107 (199151)*
ADT JP 03250093 A JP 1990-45928 19900228
PRAI JP 1990-45928 19900228
IC C10M103-02; C10M107-32; C10M161-00; C10M171-06; C10N020-06; C10N030-00
AB JP 03250093 A UPAB: 19930928
Compsn. consists of a **resin(s)** containing 0.1-1wt.% C fibre of dia.
0.01-5 microns made by the gas-phase growth.

The fibre is usually 5000 microns long, pref. with a length/dia.
ratio of at least 5, most pref. 50 or higher. The fibre is made by
decomposing hydrocarbons thermally and catalytically. Available
resins include polyethylene **resins** (low, high and
ultrahigh molecular), chlorinated polyolefin **resins**, modified
polyolefin **resins**, ethylene-vinyl acetate **copolymer**,
polystyrene, **ABS resin**, **nylons**, methacryl
resin, **polycarbonates**, polyurethane elastomer,
thermoplastic polyimides, ionomer **resins**, polyether ketone
resins, entirely aromatic polyesters and fluoro-thermoplastic
resins.

USE/ADVANTAGE - The compsn. has very good sliding characteristics,
especially under high loads and high speeds, without damaging counterpart
materials. The addition of very small amts. of the fibre notably improves the
characteristics, providing light and inexpensive part materials of high
performance.

0/0

FS CPI
FA AB
MC CPI: A08-M03B; A12-H10